



**SECRETARIAT OF THE PACIFIC COMMUNITY**

**FORTY-THIRD MEETING OF THE  
COMMITTEE OF REPRESENTATIVES OF GOVERNMENTS AND ADMINISTRATIONS**  
(Suva, Fiji, 12-15 November 2013)

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**AGENDA ITEM 2.2.5 - FISHERIES, AQUACULTURE AND MARINE ECOSYSTEMS DIVISION**

**EXECUTIVE SUMMARY**

(Paper presented by the Secretariat)

**SUMMARY**

1. The Fisheries, Aquaculture and Marine Ecosystems Division (FAME) has developed a revised strategic plan to guide its work programme from 2013 to 2016 in consultation with Heads of Fisheries.
2. Good progress has been made in implementing the 2013 work programme – many work areas will be carried forward into 2014 and some new initiatives are highlighted in the report.
3. The 8<sup>th</sup> Heads of Fisheries meeting was held during the year and the outcomes of this meeting are provided for CRGA's information.
4. Despite favourable review of FAME's work programme and a commitment by some development partners to move to more sustained funding, the division faces problems in delivering on key work areas in 2014/15 unless resources can be secured promptly from the EDF 11 regional programme.

**RECOMMENDATIONS**

5. CRGA is invited to:
    - i. endorse the revised Strategic Plan 2013-2016 of the Fisheries, Aquaculture and Marine Ecosystems Division (FAME), noting that it has already been reviewed and approved by Heads of Fisheries;
    - ii. note the achievements of the FAME Division in 2013;
    - iii. approve the continuation of work in many of these areas in 2014, as well as the new initiatives described;
    - iv. note with concern the problems that the division may face in delivering key services in 2014/15, and urge the European Union and Regional Authorising Officer to consider timely support for a follow-up fisheries project under the EDF 11 regional programme;
    - v. note the outcomes and recommendations of the 8<sup>th</sup> Heads of Fisheries Meeting.
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## **FISHERIES, AQUACULTURE AND MARINE ECOSYSTEMS DIVISION REPORT**

### **PURPOSE OF THE PAPER**

6. As in previous years, this paper reviews the division's achievements during the current year and outlines work planned for the next. The paper outlines the revised strategic plan for the division and seeks its endorsement by CRGA. Outcomes of the 8<sup>th</sup> Heads of Fisheries meeting, held in March 2013, are also presented.

### **PRESENTATION OF THE DIVISION**

#### *Strategic plan*

7. FAME developed the first strategic plan for the newly designated division in 2009. Previously, the different programmes of the then Marine Resources Division operated under separate plans.
8. The first FAME strategic plan was prepared in close consultation with stakeholders, with the objectives in particular being developed through a workshop process involving Heads of Fisheries. The plan was endorsed by CRGA 39 at the end of 2009.
9. This plan envisaged a regular review process, with an internal review (by FAME staff) after two years and an external review (by an independent consultant) after 4 years. The internal review carried out in 2012 identified a number of changes needed to the plan, which are detailed in the following paragraphs. The revised plan was finalised in early 2013; a draft was presented to Heads of Fisheries at their biennial meeting in March, and minor changes were made in response to their comments.
10. The plan looks forward for the next four years. After careful consideration it was decided that a rolling process – in which plans are reviewed every two years but the revised plan covers a four year period – was the most effective.
11. Four areas of the plan were revised:
  - Due to the growing workload and staff numbers involved in oceanic data management and oceanic monitoring (which includes observer training) these have been established as separate sections and thus require separate sets of objectives and results;
  - New work led by SPC on climate change impacts on fisheries have shown the need for new result areas that will guide the work that helps member countries plan and implement adaptation in the fisheries sector;
  - Review of the indicators developed for the first plan found that, although relevant, some could not be monitored on a regular basis due to lack of reliable data and there were problems with attribution (i.e. how much were they influenced by FAME's work). Two new sets of indicators have been developed – one intended to track progress in fisheries in the region, and the other to measure more directly the impacts of work by FAME.
  - The plan is now aligned with the goals of the SPC Corporate Strategic Plan, and links the work of the division to the three key development outcomes: sustainable economic development, sustainable human and social development, and sustainable natural resource and environmental management and development.
12. Otherwise, the plan retains many of the features of the 2010-13 strategic plan. It uses the objectives oriented planning process (OOPP) favoured by nearly all international organisations and development

partners to provide clear goals for the division and each programme, as well as objectives and results for each section. These are used as the basis of the division's annual work plan, with responsibilities for implementation allocated between individual staff in their work plans. It also provides the structure of FAME's annual reports.

13. The plan follows the standard headings of SPC divisional strategic plans, but includes a section on risks and risk management. As noted above, the section on monitoring and evaluation has been improved with the inclusion of a robust set of indicators together with the recent trends for each of these up to 2012.
14. While discussions with development partners are continuing, there are promising indications from at least one major partner that the FAME strategic plan provides an adequate basis for delivery of funding to support the overall programme of the division and a move away from project-based support. This has been a longstanding objective of FAME, and SPC as a whole.
15. CRGA is invited to review the revised strategic plan for the Fisheries, Aquaculture and Marine Ecosystems Division; note that the plan has been approved by technical specialists from member governments and administrations at the Heads of Fisheries meeting earlier this year; and endorse the plan as the basis for the division's work for the period 2013-2016.

### **Objectives**

16. The overall goal of the division remains unchanged as '*The fisheries resources of the Pacific Islands region are sustainably managed for economic growth, food security and environmental conservation*'. The goal of the Coastal Fisheries Programme (CFP) is that: '*Coastal fisheries and aquaculture in PICTs are managed and developed sustainably*'. The Oceanic Fisheries Programme (OFP) goal is: '*Fisheries exploiting the region's resources of tuna, billfish and related species are managed for economic and ecological sustainability using the best available scientific information.*'
17. There are objectives designed to guide the work of each section, which are provided below as the basis for reporting the progress achieved during the year.

### **Key Services/Sectors**

18. In the oceanic fishery, SPC provides scientific support for the management of fisheries for tuna and associated species, with a strong focus on stock assessment and modelling. This work remains the core of the programme. Essential in supporting this work, but also valuable in their own right, are three other main priorities:
  - providing and improving data and data management for the tuna fishery;
  - supporting and developing fisheries monitoring services, particularly the large and growing observer programme; and
  - improving understanding of the oceanic ecosystem that supports the region's tuna fisheries.
19. As might be expected with a shared resource like tuna, much of OFP's services are delivered at the regional level. The programme is the science service provider for the Western and Central Pacific Fisheries Commission (WCPFC), and also supports the management initiatives of the Pacific Islands Forum Fisheries Agency (FFA), the Parties to the Nauru Agreement (PNA) and other subregional groups. Nevertheless, many responsibilities lie at the national level. Crucial areas for OFP involvement, often working with FFA, include provision of country specific advice to allow members to determine their best interests in regional processes and negotiation; the improvement of national databases for tuna statistics; and training and support for national observer programmes and other aspects of fishery monitoring.

20. While OFP has always had a clear focus on the science of tuna fisheries, CFP has a much wider remit. The programme provides support to PICTs in management of coastal fisheries, sustainable development of nearshore resources, and all aspects of aquaculture. Occasionally advice on freshwater fisheries is also requested. Current work areas range from training in fishing skills to developing national management plans; and from supporting clusters of small-scale tilapia farmers to assisting some of the largest fish processing plants in the region meet export inspection requirements.
21. Most of CFP's services are delivered at the national level, but there is also an important regional element to the work programme. This is seen in cross-border issues such as aquatic biosecurity; the need to meet common export standards relating to food safety; applying standard methods for surveys of inshore resources and data analysis; and promoting the use of standard well-tested designs for fish aggregation devices (FADs). CFP also works with subregional groups of members where appropriate – initiatives to develop a roadmap for coastal fisheries with the Melanesian Spearhead Group (MSG) being a current example.

## **PROGRESS TOWARDS ACHIEVING DIVISIONAL STRATEGIC PLAN OBJECTIVES**

### ***Oceanic Fisheries***

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

22. Unusually, no region-wide assessments of the status of a tuna stock were scheduled for 2013. Instead assessments were completed for two oceanic species that are the target of some fishing vessels, as well as being taken as by-catch of boats fishing for tuna – South Pacific swordfish and silky shark. Interpreting the results for swordfish was complicated by different information on growth rates from two studies, but under one scenario overfishing is occurring. The assessment for silky shark shows the stock to be severely depleted. The WCPFC recommended no increase of fishing effort on swordfish, and management measures to reduce the targeted catch and by-catch of silky shark in the tuna fishery. Further progress has been made on the development of reference points, and a management options workshop organised before the next WCPFC meeting should see agreement on the way forward before the end of the year.
23. The Fiji longline fishery for albacore tuna became the second Pacific Island fishery to receive Marine Stewardship Council approval as a sustainable fishery – an assessment that relied heavily on data and analysis from OFP. This opens exciting new marketing opportunities in Europe, and FAME provided footage for a promotional video for launching the newly eco-labelled product at the European Seafood Show.
24. OFP continued to work closely with FFA and subregional organisations as they seek to improve on management arrangements. An important process for countries and territories in the south of the region has been the effort to develop national catch limits for the albacore fishery, which has seen big growth in fishing capacity in the last few years, threatening the economic viability of domestic longline fleets. Agreement on the allocation process has been reached at the technical level and now requires political endorsement. Bioeconomic modelling has been applied to estimate optimum levels of fishing effort for the region-wide purse seine and longline fisheries, with more work planned at the national level. This is a collaborative project with FFA.
25. The delivery of technical advice tailored to the needs of individual member countries was also stepped up during the year as additional resources became available. A series of reports on the interaction between industrial and small-scale fisheries was completed and presented to countries where this is an issue, and

the information provided on national secure webpages was increased and improved. The feature of this work area that is perhaps most appreciated by members is the ability to respond at short notice to requests for information on anything from the impact of management measures on national licensing revenue to the effect of closing areas to fishing on regional stocks, ensuring that management decisions are fully informed.

*Objective 2: To provide high-quality fishery monitoring services, analysis services and capacity development to support the management of oceanic fisheries by regional, subregional and national fisheries management authorities*

26. As in previous years, OFP staff were directly involved in delivering observer training for participants from 8 countries and by the end of July a total of 98 new observers were qualified with many already at work on fishing vessels. Training of trainers also continued, and 5 countries will have one or more qualified trainers by the end of the year. OFP expects to wind down its direct involvement in observer training, relying more on these national trainers to deliver courses, and as part of this process the Pohnpei-based observer training officer completed his service with SPC mid-year.
27. Observers have the dual role of collecting scientific data, which aligns directly with the OFP work programme, and reporting on compliance with national laws and WCPFC conservation and management measures. Recently, observer reports, and the testimony of observers and SPC's Observer Training and Support Officer, were crucial in the successful prosecution of several purse seine operators by the United States Government. The judge in the case found the observers to be credible, trustworthy and persuasive – a strong, independent validation of the quality of the training that they receive.
28. Good progress was also made in developing the skills of observer debriefers (who meet with observers at the end of their time at sea to verify the data collected, pick up on any incidents and provide guidance and support for future trips). A new training standard was agreed for debriefers and a range of training – formal courses, attachments and mentoring – was provided.
29. Data collected by observers is used to estimate the species composition of purse seine catches which are not reported accurately on logsheets. This information is critical for estimating the catch of each tuna species, and feeds directly into the stock assessments. Following independent reviews of the methodology last year, further investigation was carried out by SPC which suggested that, although estimates were broadly correct, there was scope for improvement. Additional fieldwork to establish sampling errors and further analysis were carried out.

*Objective 3: To provide high-quality data management services and capacity development to support the management of oceanic fisheries by regional, subregional and national fisheries management authorities.*

30. As in past years this work area includes the huge volume of data entry needed to keep the regional databases up to date. An important new initiative was the trial of two electronic reporting systems (e-reporting) which if successful could greatly reduce the burden of data entry at SPC and in-country. The e-TUNALOG system, which was trialled first on purse seiners in Solomon Islands, allows the fishing skipper to enter data on an electronic form on his on-board computer and transmit this directly to SPC and national authorities. The e-TUBS system is designed for data entry by observers, who can either use a laptop onboard the vessel to enter their reports, and/or upload them when they next have internet access.
31. Support for national data systems also continued with upgrades of hardware and software, training and help with auditing of databases. Countries are increasingly seeking integrated fisheries management information systems, which bring together data from different sources to give managers a complete and timely picture of the fishery. OFP, in collaboration with FFA, has been supporting, in particular, the I-2-

Fish project, which is driven by the Federated States of Micronesia and Marshall Islands, but which will be shared with other countries when development is completed.

32. Through the EU-funded DEVFISH 2 project, OFP is working collaboratively with FFA to assemble integrated data sets useful for detecting illegal, unregulated or unreported (IUU) fishing activities. A significant achievement during the year was the integration of the Automatic Identification System (AIS) data for fishing vessels operating in the region into the regular data resources used for surveillance operations, such as the vessel monitoring system (VMS) and vessel register data. In March 2013, AIS data were used to assist aerial surveillance operations that subsequently identified 19 possible IUU (illegal, unreported and unregulated) vessels operating on the high seas adjacent to the Marshall Islands EEZ.
33. Once again, the annual data workshop was held for participants from PICTs, with longer term attachments provided for tuna data specialists from Nauru and Tonga. SPC staff are also involved in training initiatives in countries outside its membership, with in-country workshops run in Indonesia, Philippines and Vietnam during the year. The Indonesian fishery in particular has a large impact on regional tuna stocks, and the operational data from the fishery are not well recorded at present, so improving data collection and systems benefits Pacific Island stakeholders in the fishery. The costs of OFP involvement in this work are covered by WCPFC.

*Objective 4: To improve understanding of pelagic ecosystems in the western and central Pacific ocean.*

34. The third and final phase of large-scale tagging operations in Papua New Guinea waters was completed as planned, achieving its target for the number of fish tagged despite a shorter operational period to keep vessel charter costs within budget. More than 396,000 tuna have now been tagged in the Pacific Tuna Tagging Programme (to which the PNG project has contributed) with over 64,000 (16%) recovered. Recoveries of bigeye tuna are now running at more than 25% – an indication of the pressure on this stock.
35. As planned, National Fisheries Authority staff have progressively taken on more responsibility for management of the tagging cruises and are now well-placed to handle all operational aspects of a large scientific programme of this kind. Substantial effort is now going into validation and analysis of the tagging data. Analyses of the mixing rates of tagged fish have also been completed and published. This information is critical for interpreting the patterns of tag recovery and implications for estimates of the stock size. Tagging data has already been incorporated into the SEAPODYM ecosystem based model – a significant refinement.
36. OFP continued to develop its systems for the collection and transmission of biological samples for analysis in Noumea. Observers are trained in the correct methods of sampling, which may include otoliths (a small bone in the head of the fish that can be examined to determine the fish's age); stomachs; and tissue samples. These are collected by national tag recovery officers and arrangements made to send them to Noumea for analysis. This network has the potential to provide a region-wide set of samples that can be used for other purposes, such as monitoring for contaminants, as well as providing material for a range of biological studies.

### ***Coastal Fisheries***

*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 the guiding principles of the 'Apia Policy'<sup>1</sup>.*

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<sup>1</sup> The Pacific Islands Regional Coastal Fisheries Management Policy.

37. The management of sea cucumber fisheries continues to be a major challenge. In mid 2013, CFP presented the results of a major study in five of the Pacific Island countries that have historically provided most of the region's production. The study estimated that over the last 15 years sea cucumber fisheries have provided income for rural communities of around USD 160 million at today's prices. But that amount could have been doubled if strategies had been in place to stabilise production and ensure that only larger and more valuable sea cucumbers were harvested. In short, \$160 million in rural income has been lost through poor management. SPC is now working with member countries of the Melanesian Spearhead Group to implement the recommendations of the report as the cornerstone of a new coastal fisheries roadmap for the subregion.
38. Improving the quality of information on coastal fisheries, and developing the capacity to collect this information, forms a key part of the work under this objective. In addition to rolling out techniques for estimating coastal fish catches, the team is also implementing a programme to train fisheries staff in simple biological sampling and determining the age and growth rates of the main coastal fish species. This work builds on earlier and continuing capacity building in resource survey methods using underwater visual census. Appropriate computer hardware and software to manage the data has now been provided in all Pacific ACP countries, and efforts in this area are now focusing on training and the development of software for specific application in Cook Islands, Tonga and French Polynesia.
39. CFP also produced: '*Status report: Pacific Islands reef and nearshore fisheries and aquaculture (2013)*'. The report, which is based on the best available information held by SPC, is an update of a 2009 report. Its main findings were: the need to improve data collection on inshore resources with better monitoring; the need for management, both community-based and national depending on species, to ensure sustainable harvesting for food security; the need to increase domestic catches of tuna and other coastal pelagics to reduce fishing pressure on reef resources; and the continued expansion of economically viable aquaculture activities, focusing on private sector development.
40. The role of OFP is restricted to providing scientific advice and analysis for oceanic fisheries. For coastal fisheries, however, CFP is the lead agency supporting the development of management plans, policies and legislation. Support in this area was completed in four PICTs – Samoa, Solomon Islands, Marshall Islands and Cook Islands – by late 2013, with work continuing in four more, noting that these processes, involving public consultation and high-level approval, often take a considerable time before conclusion.
41. CFP has been providing assistance to PICTs with the management and development of their aquarium export industries for some years, and this has been stepped up recently. Baseline assessments have now been completed in most countries that have one or more active exporters, as well as analyses of potential in PICTs that do not. Training and handling practices was provided in Kiribati; equipment for production of giant clams, and a study on the market potential was provided for French Polynesia; and a training video for coral farmers in Solomon Islands will be completed shortly.

*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.*

42. Work under this objective includes similar high-level advice in the aquaculture field. Assistance was provided to develop new or updated national aquaculture plans in Nauru and Vanuatu, with work in FSM under way when this report was prepared. The development of general aquaculture legislation is being supported in two countries, while assistance with more specific regulatory measures on aquatic biosecurity was provided to one more. Biosecurity is an area with cross-border implications, and with this in mind a workshop was convened to discuss a subregional framework for the Micronesian group. Import risk assessments were also undertaken in several countries where the introduction of species is planned for mariculture, such as cobia in PNG.

43. The aquaculture team also supported a wide range of technical trials and development projects, working with partners in member countries, to establish viable new aquaculture enterprises. These included a costed trial of aquaponics<sup>2</sup> in Marshall Islands; trials of the culture of an indigenous strain of freshwater prawn in PNG; technical assistance, and in some cases equipment, for the development of hatcheries in several countries; assistance with spawning and grow-out trials of sea cucumber in Kiribati; and other projects. Disease surveillance was also stepped up with testing for diseases of freshwater prawn in PNG and region-wide testing for a parasite of giant clams, for which the University of French Polynesia was commissioned to provide laboratory services.
44. The objective calls for work with the private sector, recognising that private enterprise will be the main driver for sustainable aquaculture. Under the Improving Agricultural Commodity Trade (IACT) project funded by EU and implemented by SPC, direct support in the form of technical assistance and/or equipment was provided for enterprises producing mud-crab in Fiji, giant clam for the aquarium trade in Kiribati, and seaweed and tilapia in Papua New Guinea. Assistance to smaller producers has mainly involved forming 'farmer clusters' which enable them to share experiences and get a better deal when purchasing inputs and selling products. The project also provides training in business management.

*Objective 3: To develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods, economic growth and climate change adaptation.*

45. Nearshore FADs are one of the most effective ways of increasing supplies of tuna to coastal communities for food and income, and also provide a viable solution to expected climate change impacts on coral reef fisheries. Although many PICTs can now deploy FADs without SPC assistance, a trend towards using sub-surface FADs to avoid vandalism and damage by shipping has continued to ensure that the Fisheries Technology Officer always has four or five missions for FAD deployment each year. In parallel with these projects, the Fisheries Economist has established data collection systems in American Samoa and FSM, to monitor the real impacts on artisanal tuna catches and analyse the economic benefits of the programmes. Before the end of the year, FAD deployments will have been carried out in Timor Leste under the DevFish 2 project, which includes the country among its Pacific ACP beneficiaries. A second project, to promote responsible spearfishing techniques, was also scheduled for completion in the last quarter of the year.
46. Fishing trials to explore the potential for new or under-exploited fisheries resources covered two areas. Following the successful trial of fishing for giant squid in New Caledonia last year, test fishing was carried out in Cook Islands in 2013. Although limited by bad weather, the trials showed similar success and proved that this previously unknown resource is available for small-scale fishers in the Southern Cooks. Work on capture of small pelagic fish was carried out in collaboration with the National Fisheries College in PNG – again with the bagan fishing platform performing well. There is potential for catches to be used for food, and there are also plans to operate a pole and line vessel, which will use suitable catches as bait.
47. A range of other improvements to small-scale fisheries were provided under this objective, including training in financial management, sea safety and fishing skills. Efforts to develop sustainable fishing associations, which can support private sector development, also continued. The section's economist had a full programme during the year with training, economic assessments and the preparation of resource materials all completed successfully. A methodology for tourism surveys, focusing on tourist expenditure associated with sport fishing, was developed and tested in Cook Islands and Niue.

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<sup>2</sup> Aquaponics is a system that combines the culture of freshwater fish with growing vegetables and herbs. Waste from the fish provides nutrients for the plants, which in turn purify the water before it is returned to the fish tank.



48. CFP's work to support market access for fisheries products from PICTs continued. A range of technical assistance training and equipment was provided, mainly focusing on the three countries that export to Europe. An inspection of the systems in PNG and perhaps one other country was scheduled during the year by officials of the European Commission, and preparations for this were completed. CFP also aims to put systems in place in one more PICT to enable the country to meet these increasingly stringent requirements as well as helping private sector processors meet the needs of different export markets.

### ***Director's Office***

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

49. An important output under this objective was the successful conclusion of the 8<sup>th</sup> Heads of Fisheries meeting, which was held in Noumea in March. The outcomes of the meeting are attached as annex 2. The meeting provided an opportunity to repeat a confidential survey of the perceptions of participants of the services provided by FAME to their governments, allowing comparison with results from 2009. On the key indicator of satisfaction with the services of the two programmes, there was a marked improvement. The approval rating increased from 75% to 85% for OFP and from 62% to 75% for CFP. Results of the survey also showed that Heads of Fisheries felt greater ownership of the programmes, better informed of activities and results, and had a high regard for the quality of fisheries information products.
50. Close coordination of activities with other regional and subregional organisations involved in the fisheries sector continued. The FFA/SPC colloquium was held as planned, with positive outcomes. The memorandum of understanding with WorldFish was renewed, and a letter of agreement on joint implementation of a three-country programme on community based fisheries management was signed. New joint projects were also agreed with L'Institut de recherche pour le développement (IRD) and FFA. A design study for a joint project with UNIDO was also completed.

*Objective 2: To promote informed policy decisions and public awareness of marine resource issues and climate change in Pacific Island countries and territories.*

51. FAME continued to produce a full range of fisheries information materials. The fisheries address book continues to be popular. As well as allowing fisheries professionals to keep in touch across the region, it seems that it is also popular with the private sector. One successful exporter of giant clams recently reported that all of her foreign buyers contacted her for supplies after finding her contact details in the address book. Communication through various media was also maintained on a regular basis, with FAME staff producing press releases and handling regular requests for radio and TV interviews on regional services.
52. 2013 also saw the final phase of rolling out the findings of the assessment of the vulnerability of Pacific fisheries to climate change. In-country workshops were held in five countries, and advice given on how to incorporate fisheries adaptations into national strategies and plans. In a number of cases, the recommended adaptations were incorporated in national strategies; in others the consultation processes continue. Although there were outstanding requests to continue this process beyond the eight countries covered, there is unfortunately no more funding to extend the project.

### **PROGRESS TOWARDS ACHIEVING KEY DEVELOPMENT OUTCOMES OF THE CORPORATE STRATEGIC PLAN**

53. SPC's corporate plan calls for delivery of results against three key development outcomes (KDOs): sustainable economic development; sustainable natural resource and environmental management and development; and sustainable human and social development. Much of FAME's work is focused on the

management of natural resources (fisheries resources), but the other KDOs are addressed by many activities and it is not always easy to split them up. For example, a training programme may build human capacity to improve management of a resource, which in turn underpins economic activity. To avoid duplication, this part of the report brings together specific examples of work in different areas that contributes to a particular KDO.

### *Sustainable economic development*

54. Trade is at the heart of economic development. Fisheries products are one of the most widely traded commodities globally and one of the few exports from PICTs that have shown consistent growth in value over the last decade. For some small island countries, they are about the only commodity available for export. FAME is helping countries and individual exporters meet the demanding requirements of importing nations in terms of inspection and certification; assisting with eco-labelling to target niche markets; and assessing market opportunities. Of course a number of activities also target increased production of commodities for export. Examples include support for artisanal tuna fishing in Kiribati; and efforts to boost seaweed production in Fiji.
55. Market access to the EU for tuna products is important for the viability of processors in PNG, Fiji and Solomon Islands which employ thousands of workers. During 2013, advice was received that EU inspectors would conduct audits on the competent authorities in Papua New Guinea and one other Pacific Island country who certify the conduct of various inspections and testing to ensure products meet EU health requirements. In preparation, the SPC post-harvest officer, working with an experienced consultant, carried out pre-audit inspections in PNG and Fiji, and identified a number of corrective actions to prepare for the audits later in the year. The competent authorities impose high standards on local processors, and training for process managers was also provided.
56. Discriminating consumers in Europe and the US are increasingly demanding proof that the fish they eat has come from a sustainable fishery. The Marine Stewardship Council (MSC) provides a third-party certification scheme that carries out a rigorous investigation of the fisheries science before allowing producers to use their logo to certify products as sustainably harvested. In 2013, SPC provided information on the stock status of albacore and data on various aspects of the fishery, allowing the fishery in Fiji waters to be certified by MSC. Assistance was also provided to the Parties to the Nauru Agreement on the management measures need to retain their conditional certification of the PNA free school skipjack fishery.
57. Export of aquarium products introduces further complexities. Two of the popular exports from the region – coral and giant clams – are subject to the Convention on the Trade in Endangered Species, and need certification that their harvest is not detrimental to the status of the species (much of the production from the region is now farmed). SPC staff have assisted their counterparts in Fisheries Departments with this requirement. As live animals, clams exported to the EU are also subject to the reporting requirements of the Organisation of Animal Health (OIE). SPC supported a further training course to familiarise quarantine staff with the online reporting requirements, and has recently launched a study to test clams from across the region for the main notifiable pathogen.
58. Recent work in French Polynesia has established the viability of culturing giant clams from wild-caught larvae, with the potential to increase production. The authorities were keen to first establish the size of the international market for clams for aquaria, knowing that this is a small sector of the aquarium trade and could be oversupplied. SPC co-funded a detailed market assessment, which confirmed a significant opportunity for French Polynesian exports for the aquarium trade, but confirmed that the use for food would be better focused on the domestic market.

*Sustainable human development*

59. Developing human capacity has always been an important role of FAME (and indeed SPC as a whole), with a range of training activities and attachments to build skills, knowledge and expertise. The emphasis is on 'learning by doing' and there is a mix of Noumea-based and in-country delivery. The subject matter is diverse: from the use of tuna data management programmes to identifying fish diseases; and from small boat safety to survey techniques to estimate sea cucumber populations. SPC was recently appointed as the service provider to deliver a number of short, practical in-country training courses for the New Zealand Aid Programme over the next five years.
60. A highlight of FAME training activities in recent years is the observer training programme, which has led directly to the employment of some 700 young Pacific Islanders as fisheries observers. While the emphasis was initially on simply getting the required number of observers trained and deployed, in 2013 emphasis has been placed on building the skills of national trainers and also developing the standards for debriefers – a role that provides a career step up for observers.
61. FAME has also explored other models of capacity building. In 2013, two staff from Pacific Island fisheries departments were fully funded under the AusAID Deepwater Snapper project to undertake MSc programmes at Australian universities. The two will complete the taught course, and then work on snapper stock assessments for their own countries for their Masters theses. The project is also providing support to two other students (one MSc, one PhD) who have other sponsorship for their studies but will benefit from attachments at SPC to work with the Snapper Scientist as their external supervisor. FAME staff also supervise and support research on various aquaculture topics by MSc students enrolled at the University of the South Pacific.
62. The Pacific Island junior professional scheme continued through 2013 with two recruits to the programme, which provides a one-year working attachment. Applicants are selected on merit and on the condition that their employer agrees to hold their position for them until they complete the assignment. The junior professionals undertake a range of fieldwork related to monitoring and management of coastal resources in several different countries before returning home. As well as building their skills and experience, they learn in detail how SPC can assist them in future and maintain contacts with relevant FAME staff once back in their own countries.
63. Since 2012 FAME has also been exploring opportunities to introduce knowledge of fisheries and fisheries issues into the school systems of member countries. In 2013, a project to provide materials for schools across Cook Islands was agreed on with the education authorities. Based on the guides developed for community workers, the materials provide information on the species and species groups most important for fishing, and show how these resources can be better managed through simple controls. A special guide for teachers, outlining a number of practical projects to be undertaken by students of different ages, is also being developed.

*Sustainable Natural Resource Management*

64. Science based management of fisheries resources is the core function of the Division, and a number of important outcomes were achieved in 2013. In the oceanic fishery, PICTs have sought to increase their control of longline fisheries, while imposing sustainable management, through developing limits on catch or effort based on EEZs. Currently, catch limits in these fisheries agreed by the WCPFC (for example, for bigeye tuna) are allocated by national fleet. SPC has worked with PNA members on a scheme that allocates fishing days in the longline fishery for tropical tunas to EEZs. This has been agreed to by six of the eight PNA countries and is now in a trial phase.

65. In the subtropical fishery for albacore, a somewhat different approach has been used with the objective of setting a total allowable catch for each EEZ. Inevitably, countries see this process as an opportunity to ‘stake a claim’ to a share of the catch for the fishery and a number of meetings have been held to moderate expectations and bring the total catch allocation within the limit of maximum sustainable yield. SPC has supported this FFA initiative by providing information on sustainable yields, historical catches and the potential catch by zone to inform the decision-making process. An allocation formula has now been agreed in principle at the technical level and it is hoped it will be endorsed before the end of the year.
66. The heavy fishing pressure on sharks, driven by the ever-increasing prices paid for sharkfin in Asian markets, has attracted global concern. SPC is implementing the shark research plan of the WCPFC, which aims among other things, to improve collection of data on catches of different species from logsheets and observer reports. In 2013 the results of a stock assessment for silky shark were presented to the Scientific Committee, showing that, like the oceanic white tip shark assessment in 2012, the stock of the species is severely depleted. An analysis of the impacts of different gear types identified that a ban on ‘shark lines’ – short lines attached to the floats of a tuna longline – would be an effective measure to reduce catches. This will be proposed at the full WCPFC meeting in December and, if approved, will supplement a number of measures already taken by individual PICTs.
67. In coastal fisheries, good progress was made in a number of PICTs with putting improved management measures in place. In Samoa, SPC assisted with the development of a national coastal fisheries strategy, which sets out a plan of work for the development of management plans for export fisheries as well as the further development of community based management measures at the village level.
68. In Solomon Islands, a draft management plan for sea cucumber was developed following nation-wide resource surveys initiated by CFP and analysis of the results by fisheries staff during attachments in Noumea. In Vanuatu, plans for sea cucumber and trochus have also been drafted with SPC support. The plans are now at the public consultation stage. In Vanuatu, fisheries staff will hold discussions at the community level to seek wide public comment. In Solomon Islands the first consultation will be with Provincial Administrators at their annual meeting in Honiara to secure the endorsement of local government, which has devolved responsibilities for inshore fisheries management.
69. In Tokelau a precautionary closure of the sea cucumber fishery was followed by resource surveys for sea cucumber and two other groups of invertebrates that are easily over-exploited – giant clam and coconut crab. The fisheries officers from each island again came to Noumea to work through the data they had collected, after being trained by SPC staff in the field, and developed management recommendations that they have taken back for consultation.

## **ADDRESSING CROSSCUTTING INITIATIVES**

### *Gender*

70. FAME actively promotes the view that gender should not be a barrier to advancement in any fisheries career. During the year a brochure was prepared and circulated to promote careers in the tuna industry for young men and women. A second leaflet looks at the more specific opportunity for women to work as fisheries observers. While this remains a male dominated profession, SPC’s efforts have been successful and 32 women are now employed as observers in PNG, Solomons, Fiji and Kiribati – benefiting from a special module during their training.
71. Another information product was the 30 minute video ‘*Wawata Topu*’, which features the women spearfishers of Atauro Island in Timor Leste. The video provides a candid view of the pressures that caused these women to adopt a livelihood option that would normally be regarded as ‘man’s work’ – both in Timor and across many PICTs. As well as challenging gender stereotypes, it carries important messages

about the need for men and women to share family responsibilities fairly and asserts the importance of coastal fisheries for food security in this newly independent country. The video – with a sound track recorded in the local language but with subtitles in English or French – will be distributed to television stations across the Pacific. It is already available on-line and has attracted considerable interest.

#### *Food security*

72. The importance of fish for food security in PICTs has been stated many times, and FAME activities aim to: maintain levels of fish production from coastal resources; provide new opportunities to access tuna (through FAD deployment); provide fish and income from aquaculture; and explore previously under-used or unexploited resources.
73. During 2013, FAME completed analysis of another potential source of fish for food – the by-catch of edible species in the purse seine fishery. Based on data from seven member countries, the study, estimated the edible by-catch of species such as rainbow runner to be between 3,000 and 4,000 tonnes per year in recent years – much of it discarded at present. The catches in the EEZs of some smaller countries could potentially provide 20 kg per person per year if the fish were landed for local consumption. Of course there is already a trade in by-catch in some of the more important transshipment ports, but there may be opportunities to expand and improve on this.

#### *Reducing risks/responding to climate change*

74. As noted in paragraph 6, one of the substantive changes from the review of the strategic plan was to recognise the increasing importance of climate change impacts on fisheries. The division has activities in forecasting long-term impacts on oceanic fisheries; monitoring coastal fisheries to detect impacts of climate change; working with communities on pilot projects to increase their resilience; and assisting at the national level with adaptation plans and strategies.

#### *Human rights*

75. The management of natural resources is an area prone to corruption. FAME contributes to addressing governance issues through enhanced institutional capacity for planning and implementation of transparent and accountable resource management. Oceanic stock assessment results are publically distributed, with highlights provided to the media, contributing to greater transparency. Coastal management plans are developed based on local needs and involve public consultation to foster increased participation and equity.

#### *Addressing NCDs*

76. Fish is recognised as an important element of a healthy diet, and maintaining or increasing the availability of fish for consumers contributes to the fight against disease. For example, the recently launched aquaponics system in Marshall Islands will be operated by the Pacific Wellness Centre – a non-profit organisation dedicated to improving diets through the supply of fresh fish and vegetables.
77. While much of the discussion on NCDs focuses on lifestyle diseases, workplace accidents are another cause of mortality and morbidity affecting economically productive members of the community. The fishing industry has a poor safety record in comparison with others. FAME staff deliver ‘safety at sea’ training as part of all courses in fishing techniques, and produce a wide range of materials aimed at reducing the loss of small boats at sea. The aquarium export industry also has a poor safety record in some PICTs, with accidents causing the death or paralysis of several divers each year. FAME has recently started a programme to provide training, and recommends the requirement that all licensed operators use only certified divers.

**2013 STAFFING AND BUDGET**

78. The revised budget for the division for 2013 was 13,685,400 CFP units (equivalent to around USD 14 million at current exchange rates). The breakdown between the two programmes and the Director's Office is shown in Table 1.

*Table 1: Revised expenditure budget of FAME for 2013 (CFP units)*

	<b>Director</b>	<b>OFP</b>	<b>CFP</b>	<b>Division</b>
Core	332 100	1 175 900	1 413 300	2 921 300
Project	609 000	6 464 100	3 691 000	10 764 100
<b>Total</b>	<b>941 100</b>	<b>7 640 000</b>	<b>5 104 300</b>	<b>13 685 400</b>

79. In general, FAME programmes were adequately funded in 2013, but the situation is less promising for 2014 and beyond.

**Staffing**

80. Staffing levels have remained stable for the last three years. In mid-2013, the division had 84 staff; 32 were female (38%). The breakdown is shown in Table 2.

*Table 2: Staffing of FAME as at July 2013*

	<b>Director's Office</b>	<b>OFP</b>	<b>CFP</b>	<b>Total</b>
Professional	3	31	20	54
Technical	0	21	3	24
Administrative	1	3	2	6
<b>Combined</b>	<b>4</b>	<b>55</b>	<b>25</b>	<b>84</b>

*Note: For consistency with the budget presentation, Fisheries Information Unit staff are listed under CFP, but will continue to work for both programmes and report to the Director.*

81. Nineteen nationalities are represented among the staff (plus staff who come from each of the three French territories), and 17 of the 54 internationally recruited posts are held by nationals of Pacific Island countries. The number of Pacific Island internationally recruited staff employed by the division has remained the same as last year.

82. As in previous years, technical staff are seconded to national fisheries administrations in New Caledonia and French Polynesia, while FAME projects meet the costs of staff employed through national fisheries administrations in a number of other countries on a short-term basis. Currently, three professional staff and one technical officer are based in the SPC Suva office. The FAME presence in the Pohnpei office is reduced to one tag recovery officer as funding for the observer training officer position has ended, while observer data entry posts have transferred to WCPFC.

## 2014 WORK PROGRAMME AND BUDGET

### *Work programme*

83. The expected outputs of the division for 2014 – that can be achieved with the financial resources that have been secured – are summarised as usual in the ‘green book’ budget. It is not always easy to separate the results of recurrent and project funding – many results require the input of resources from both, reflecting the alignment of projects with the strategic plan and a continuing shortage of recurrent funding.
84. These results are developed into a more detailed work plan in the first weeks of the year, which itself feeds into the performance appraisal system for staff. The main work areas and projects of the division are described in the report on 2013 results. During 2014, implementation of most of these programmes will continue. This section of the report will therefore focus on where there will be changes.

### *Oceanic Fisheries*

85. An important output for 2014 will be the new stock assessment for bigeye tuna. Following the independent review of the 2011 assessment, OFP scientists have been working to improve both the input data for this assessment, as well as elements of the Multifan CL model that is used to generate it. These improvements may result in a significant change to the current assessment, which shows that overfishing is occurring and fishing mortality needs to be reduced by about one third. Revised stock assessments will also be provided for yellowfin tuna and skipjack.
86. The year will also see the opportunity to build on the results of trials of electronic reporting that are currently in progress. While securing the agreement of the different fleets to use new technology can be time consuming, it would be reasonable to expect all domestic and locally based purse seine vessels to be reporting catches electronically by the end of 2014. Combined with the development of national fisheries information systems, there is a real prospect that PICTs will have near real-time information on fishing operations in their waters in the near future.
87. The recent stock assessment of swordfish – potentially an important target for longline fisheries for PICTs in the south of the region – was equivocal due to different results from two studies of the growth rate. During 2014, SPC will host an expert on the species as a Marie Curie fellow, with a view to resolving uncertainty on the key biological parameters so that improved assessments can be delivered.

### *Coastal Fisheries*

88. 2014 will see the implementation of a new collaborative project with WorldFish on community based fisheries management. The project will extend work already carried out in Solomon Islands and will develop suitable approaches for Kiribati and Vanuatu, with two locally recruited SPC staff working alongside their counterparts in the national fisheries administrations in each of these two countries. Advertisements for these positions were being issued as this report was prepared.
89. A major new aquaculture project, funded by ACIAR, will also enter its first full year of operation after a delayed start. Working in Fiji, Samoa, Vanuatu and Kiribati, the project will expand the culture of tried and tested aquaculture species: sandfish in Kiribati; and tilapia and freshwater prawns in the other three countries. Although FAME has collaborated in many ACIAR aquaculture projects, this is the first time we have been the lead agency.

*Director's Office*

90. A new Director will be in place in 2014, and it is not for the old one to prescribe his or her work, but priorities may include:
- implementing the recommendations of the mid-term review of the division's main AusAID funded project;
  - developing a project proposal for EU funding under EDF 11 (assuming that the regional indicative programme is agreed on promptly);
  - hosting a mid-year technical meeting, which will combine a presentation of the results of ACIAR projects with the annual steering committee meeting for EU projects and an informal consultation with Heads of Fisheries;
  - taking up the chair of the Marine Sector Working Group again, with a view to progressing some of the project concepts developed to implement the regional Oceanscape initiative.

*Budget*

91. 2014 expenditure is estimated as follows (Table 3).

**Table 3: Estimated expenditure budget of FAME for 2014 (CFP units)**

	<b>Director</b>	<b>OFP</b>	<b>CFP</b>	<b>Division</b>
Core	316 600	1 045 400	1 301 000	2 663 000
Project	0	4 508 500	2 966 200	7 474 700
<b>Total</b>	<b>316 600</b>	<b>5 553 900</b>	<b>4 267 200</b>	<b>10 137 700</b>

92. The core funding available to the division was cut by nearly 9% as a result of the decline in the value of the Australian dollar (the main source of core funds) and the decision not to apply any cut to corporate and support services. This leaves the division with less core funding – in CFP terms – than in 2005. Declines in project income result from the ending of the division's main EU funded project (although an extension and some limited additional funding were expected to be approved before the end of the year); the end of GIZ (German) funding for community-based climate change activities; and the end of AusAID funded climate change work.

## **FUTURE DIRECTION, OPPORTUNITIES AND CHALLENGES**

93. As stated before, and after a period of three years in which the Division has enjoyed reasonably stable levels of funding, FAME once again faces a major challenge in maintaining important areas of work due to discontinuity in the project funding cycle.
94. In 2014 FAME will lose its capability to provide policy advice on climate change adaptation; to implement community-based fisheries management incorporating climate change adaptations; to analyse and report to countries on the likely impacts of climate change on tuna; and to provide support and training to PICTs in monitoring climate change impacts on coastal fisheries. This last area includes the well-regarded young professional scheme, which will have to stop unless other funding is secured.
95. In early 2015 at the latest, work supported by EU SciCOFish funding will end. This includes all of FAME's capability to deliver observer training across the region (other New Zealand funding in this area ends around the same time), as well as support for assessment of coastal resources and the development and maintenance of databases on coastal fisheries. In theory, the EDF 11 regional programme should be operational from early 2014, but in the past there have often been delays.



96. Despite favourable reviews of projects and the overall work programme of FAME, and despite commitments by development partners to move towards more sustained funding in the medium term, the problem of discontinuity of funding for essential work still remains.

## **RECOMMENDATIONS**

97. CRGA is invited to:
- i. endorse the revised Strategic Plan 2013-2016 of the Fisheries, Aquaculture and Marine Ecosystems Division (FAME), noting that it has already been reviewed and approved by Heads of Fisheries;
  - ii. note the achievements of the FAME Division in 2013;
  - iii. approve the continuation of work in many of these areas in 2014, as well as some new initiatives described;
  - iv. note with concern the problems that the division may face in delivering key services in 2014/15, and urge the European Union and Regional Authorising Officer to consider timely support for a follow-up fisheries project under the EDF 11 regional programme;
  - v. note the outcomes and recommendations of the 8<sup>th</sup> Heads of Fisheries Meeting.
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ANNEX 1

**MID-YEAR STATUS REPORT ON OUTPUTS BY DIVISION STRATEGIC PLAN GOALS –  
BY MEMBER, MULTI-COUNTRY AND REGIONAL**

**FAME NATIONAL WORK IN 2013**

**FRANCOPHONE COUNTRIES**

<i>Section</i>	<i>Strategic Objective</i>	<i>Planned Output</i>	<i>Status</i>
<b>French Polynesia</b>			
<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Develop an export database for coastal resources for French Polynesia	On Track
		French Polynesia baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.	On Track
		Post larval capture and culture assessments, exports trials and reporting for invertebrates completed for French Polynesia	On Track
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national capacity in fisheries monitoring</i>	Technical support for national observer and port sampling programme	Completed
<b>New Caledonia</b>			
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Technical factsheets produced on mariculture aquaculture commodities for New Caledonia	Completed
		Mariculture hatchery facilities established in New Caledonia	Completed
		Report completed on results of scallop and lobster aquaculture development projects	On Track
		Training attachment on mariculture completed	Completed
		Report completed which reviews current practices and areas for improvement in the New Caledonia shrimp industry – On-going technical advice provided on aquatic animal health	On Track
<i>Nearshore</i>	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	Assistance provided to strengthen sport fishing tourism in New Caledonia – Promotional materials (films and articles) will be produced in support of fly-fishing tourism in northern province	

<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	New Caledonia baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.	On Track
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>National ecosystem-based management of oceanic fisheries is supported by the best scientific information and advice</i>	Tuna Fisheries Artisanal Data Management System provided to New Caledonia for Deep Water Snapper	On Track
	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of NECTALIS cruise completed	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
<b>Vanuatu</b>			
<i>Aquaculture</i>	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	Updated National Aquaculture Plan completed for Vanuatu	Completed
	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Report completed on training activities and results (year 1 of 3) of JICA funded Part II Grace of the Sea Mariculture Project in Vanuatu – On-going technical assistance	On Track
		Technical assistance and equipment provided for freshwater hatchery development	Completed
	<i>Competent authorities with strengthened capability using science-based approaches to manage aquatic biosecurity risks and to facilitate trade</i>	Review of national biosecurity bill completed to incorporate aquatic biosecurity component	Completed
	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	In-country consultation conducted and report completed providing recommendation for Vanuatu's involvement in the new RESCCUE Project	Completed
	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	National aquaculture legislation developed for Vanuatu – Two national consultations done, one with FFA	Completed

<i>Science &amp; Management</i>	<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Advice provided for institutional strengthening for Vanuatu – Assessment report developed jointly with FFA on institutional needs of the fisheries department.	On Track
		Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangements	On Track
		Advice provided for institutional strengthening studies	On Track
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
Vanuatu baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.		On Track	
<i>Data Management</i>	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	National tuna fishery data management staff receive in-country training in using SPC-developed database systems	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>National ecosystem-based management of oceanic fisheries is supported by the best scientific information and advice</i>	Tuna Fisheries Artisanal Data Management System provided to Vanuatu for deep water snapper	On Track
		Co-supervision provided to Masters student from Vanuatu	On Track
	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Vanuatu web portal completed for deep water snapper fishery information	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Vanuatu Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems		On Track	

<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Updated country website for Vanuatu to provide easy country access to key fishery statistics	Completed
		Report completed for Vanuatu on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Country-specific model developed for Vanuatu to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
		Technical support provided to Vanuatu to support Total Allowable Catch (TAC) setting	Completed
<b>Wallis and Futuna</b>			
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track

## ANGLOPHONE COUNTRIES

<b>Section</b>	<b>Strategic Objective</b>	<b>Planned Output</b>	<b>Status</b>
<b>American Samoa</b>			
<i>Nearshore</i>	<i>Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills</i>	National training in fisheries financial management, economics, project management and governance conducted for American Samoa – Completed in May 2013	Completed
	<i>To develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods, and economic growth and climate change adaptation</i>	Strengthened FAD programme in American Samoa	Completed
<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Capacity development provided in American Samoa for market and creel survey methodologies	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track

<b>Cook Islands</b>			
<i>Nearshore</i>	<i>Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills</i>	Economic tourist surveys are established in Aitutaki to implement sport fishing tourism monitoring framework	On Track
		National economic assessment of fisheries, aquaculture or climate change adaptation projects/businesses conducted – Assessment of economic potential for exploitation of sea cucumber stocks in the Cook Islands and recommendation for management to sustain long term economic potential	Completed
	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	Assistance provided to strengthen sport fishing tourism in Aitutaki – Funding of boat masters training course in Aitutaki as part of accreditation process for local guides	Completed
		Fisheries diversification project implemented – Diamond-back squid trials completed in Tonga to identify potential fish resources and catch methods for future development	Completed
	<i>Improved seafood quality standards and value-adding for exports</i>	Technical assistance and advice provided to Competent Authorities/Fisheries Administration in Cook Islands – Review completed on establishment of Competent Authority to put systems in place for certification of seafood products for export purposes. Pending Government funding to progress the work	On Track
<i>Science &amp; Management</i>	<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangement.	Completed
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Water quality and pearl farm production databases developed for the Cook Islands – Water quality completed in 2013 and pearls to do in 2014	On Track
		Cook Islands baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.	On Track
		Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided – The server has been installed and the database front-ends SEMCoS and RFID installed and tested on the relevant desktops. Training on QGIS was provided to coastal staff and the software has been installed on various MMR machines.	Completed
		Cook Islands in water invertebrate resources field assessment, capacity development (including attachments), data entry, analysis and reporting undertaken	Completed

<i>Data Management</i>	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	National tuna fishery data management staff receive in-country training in using SPC-developed database systems	On Track
		Training attachments at SPC in data management principles and database systems provided for member-country fisheries officers	Completed
	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	On-site installation of latest Tuna Fisheries Database Management System with data review completed	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodum ecosystem information	On Track
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for the Cook Islands on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Updated country website for the Cook Islands which provides easy country access to key fishery statistics	Completed
		Country-specific model developed for Cook Islands to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
		Technical support provided to Cook Islands to support Total Allowable Catch (TAC) setting	Completed
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Economic feasibility study undertaken on aquaponics in the Cook Islands	Completed
<b><i>Federated States of Micronesia</i></b>			
<i>Aquaculture</i>	<i>Competent authorities with strengthened capability using science-based approaches to manage aquatic biosecurity risks and to facilitate trade</i>	National aquatic biosecurity legislation developed	Completed
	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	training attachment on mariculture completed	Completed
	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	New national and state Aquaculture Plans completed for FSM	On Track



<i>Nearshore</i>	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	Strengthened FAD programme in Yap (FSM)	Completed
<i>Science &amp; Management</i>	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	FSM attachment training on otolith reading (in collaboration with IRD) and other biological sampling	On Track
		Climate Change adaptation pilot sites identified, established, workplans developed and adaptation activities implemented in FSM – Sites established in Yap with adaptation activities implemented. Concept to be replicated in other FSM States.	On Track
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	FSM in water invertebrate resources field assessment, capacity development (including attachments), data entry, analysis and reporting undertaken – Training completed, attachment to Noumea in late 2013	Completed
		FSM baseline assessments and monitoring report completed for the aquarium trade and capacity development and attachment training provided in Noumea	On Track
		Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
		FSM field testing and capacity building, analysis and reports completed (market and creel assessment)	Completed
<i>Data Management</i>	<i>The oceanic fisheries management initiatives of FFA and other sub-regional fisheries organisations are supported by efficient and cost-effective data management services</i>	Tuna Fisheries Database Management for Monitoring, Control, and Surveillance System enhanced as a result of in-country technical assistance visit	Completed
	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	On-site installation of latest Tuna Fisheries Database Management System with data review completed	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track

<i>Ecosystems Monitoring &amp; Assessment (cont'd)</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	FSM Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for FSM on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report updated on Fish Aggregating Device (FAD) closures for FSM	Completed
	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed on purse seine bycatch and catch retention for FSM	Completed
<b><i>Fiji</i></b>			
<i>Aquaculture</i>	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	New National Aquaculture Plan completed for Fiji	On Track
		National aquaculture decree developed for Fiji – Draft decree produced	Completed
	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Mariculture/freshwater hatchery facilities established in Fiji	Completed
		Improve seaweed culture and production in Fiji through trials on new seaweed strains and through provision of trainings	On Track
<i>Nearshore</i>	<i>Improved seafood quality standards and value-adding for exports</i>	Technical assistance and advice provided to Competent Authority/Fisheries Administration in Fiji – Mid-term review completed, shortfalls identified, onsite coaching to be provided in August 2013 for continuous capacity building and maintaining importing country market access requirements, and maintain EU accreditation.	On Track

Science & Management	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Finfish UVC survey assessment training completed	Completed
		Fiji baseline assessments and monitoring report completed for the aquarium trade and capacity development and attachment training provided in Noumea	On Track
		Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided – Training of Lami fisheries officers & PCDF staff on use of RFID for data entry & retrieval & introduction to QGIS. Training of Lami IT staff on installation of RFID/QGIS. Training of Ministry of Fisheries & Forests IT staff on server maintenance.	Completed
		Fiji in water invertebrate resources field assessment, capacity development (including attachments), data entry, analysis and reporting undertaken – Currently working on assessment report and management advice	Completed
		Fiji field testing and capacity building, analysis and reports completed (market and creel assessment)	Completed
		Fiji Biological work including otolith reading, capacity development and attachment training	On Track
		<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Climate Change adaptation pilot sites identified, established, workplans developed and adaptation activities implemented in Fiji – This is linked in with the Kadavu project (MCZZ05XN)
Adaptation activities including capacity development identified and implemented in Kadavu, Fiji	On Track		
<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangement. – Waiting on feedback from country		On Track
Data Management	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	Data quality and coverage audits of member country tuna fishery data (LOGSHEET, UNLOADING and PORT SAMPLING) conducted during in-country visits and at SPC according to established procedures and agreed schedule, and outcomes of audits conveyed	Completed

<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Fiji Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national capacity in fisheries monitoring</i>	Basic observer training course conducted for Fiji in Suva.	On Track
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Updated country website for Fiji which provides easy country access to key fishery statistics	Completed
		Report completed for Fiji on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Reports/analyses completed and technical advice provided for meeting on Fiji TBOA MSC certification process	Completed
	<i>Enhanced capacity to interpret stock assessment information and advice</i>	Attachment completed from Fiji to work on country website and stock assessment-related analyses	Completed
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Business training provided to upgrade skills of pearl farmers Fiji.	Completed
		Feasibility assessment completed of new production of Mud Crab and export (import substitution) potential.	On Track
		Commercial tilapia Pond farmers are organised into cluster groups to improve efficiency in operation & production	On Track
<b>Guam</b>			
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
<b>Kiribati</b>			
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Reports completed on sandfish (broodstock management, breeding strategies, larval rearing, nursery techniques and grow-out approaches) and seaweed trials in Kiribati.	Completed
<i>Nearshore</i>	<i>Improved seafood quality standards and value-adding for exports</i>	Training in fish handling and safety for export markets completed in Kiribati – Series of tuna handling workshops scheduled in October in Tarawa	Completed

<i>Nearshore</i>	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	Training in vessel operations and safety at sea completed in Christmas Island to enhance fishing vessel operations and safety at sea practices	Completed
	<i>Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills</i>	Strengthened FAD programme in Kiribati	Completed
<i>Science &amp; Management</i>	<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Kiribati: Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangement.	On Track
	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Reporting completed on Climate Change monitoring including attachment training in Noumea for Kiribati	Completed
		Kiribati pilot site re-survey completed, capacity development provided in survey methods and temperature loggers and data maintained – Survey work planned for October 2013	Completed
		Kiribati attachment training on Otolith reading (in collaboration with IRD) and other biological sampling	On Track
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Kiribati baseline assessments and monitoring report completed for the aquarium trade and capacity development and attachment training provided in Noumea	On Track
	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed	
<i>Data Management</i>	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	Training attachments at SPC in data management principles and database systems provided for member-country fisheries officers	Completed
	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	Data quality and coverage audits of member country tuna fishery data (LOGSHEET, UNLOADING and PORT SAMPLING) conducted during in-country visits and at SPC according to established procedures and agreed schedule, and outcomes of audits conveyed	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track

<i>Ecosystems Monitoring &amp; Assessment (cont'd)</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Kiribati Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national oceanic fishery monitoring to meet national and international obligations</i>	In-country technical support for tuna and artisanal data systems in Kiribati	Completed
	<i>Enhanced national capacity in fisheries monitoring</i>	Basic observer training course conducted for Kiribati in Kiritimati.	Completed
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for Kiribati on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Report updated on Fish Aggregating Device (FAD) closures for Kiribati	Completed
		Report completed on purse seine bycatch and catch retention for Kiribati	Completed
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Technical assistance provided to commercial giant clam enterprise to improve production	On Track
<b>Marshall Islands</b>			
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Establishment of a demonstration aquaponics facility in Marshall Islands	Completed
	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	Aquaculture programme needs assessment completed in Marshall Is to identify national aquaculture priority areas	Completed
<i>Nearshore</i>	<i>To develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods, and economic growth and climate change adaptation</i>	Fish waste utilization project supported in the Marshall Islands to improve livelihoods and the environment – Fish grinder supplies and TA completed	Completed
<i>Nearshore</i>	<i>Improved seafood quality standards and value-adding for exports</i>	Technical assistance and advice provided to a fisheries private enterprise in Marshall Island – To be done in August 2013. Conduct validation on tuna pre-cookers to establish proper operating systems for maximising production output and safer product for human consumption, business sustainability	On Track
		Technical assistance and advice provided to Competent Authorities/Fisheries Administration in Marshall Islands – Scoping visit to identify areas for further technical assistance	Completed

<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
		Marshall Islands baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.	On Track
	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Reporting completed on Climate Change monitoring including attachment training in Noumea for RMI	Completed
		RMI pilot site re-survey completed, capacity development provided in survey methods and temperature loggers and data maintained	Completed
		RMI attachment training on Otolith reading (in collaboration with IRD) and other biological sampling	On Track
<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangement.	Completed	
<i>Data Management</i>	<i>The oceanic fisheries management initiatives of FFA and other sub-regional fisheries organisations are supported by efficient and cost-effective data management services</i>	Tuna Fisheries Database Management for Monitoring, Control, and Surveillance System enhanced as a result of in-country technical assistance visit	Completed
	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	On-site installation of latest Tuna Fisheries Database Management System with data review completed	Completed
	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	National tuna fishery data management staff receive in-country training in using SPC-developed database systems	On Track
		Training attachments at SPC in data management principles and database systems provided for member-country fisheries officers	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Marshall Islands Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track

<i>Ecosystems Monitoring &amp; Assessment (cont'd)</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national capacity in fisheries monitoring</i>	Basic observer training course conducted for Marshall Islands in Majuro.	On Track
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for RMI on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Report completed on purse seine bycatch and catch retention for the Marshall Islands	Completed
		Report updated on Fish Aggregating Device (FAD) closures for Marshall Islands	Completed
<b>Nauru</b>			
<i>Aquaculture</i>	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	Updated National Aquaculture Plan completed for Nauru – Draft report produced	Completed
<i>Nearshore</i>	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	Fisheries education project started in Nauru to introduce fisheries in school curricula	Completed
<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
		Nauru baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.	Completed
		Nauru field testing, capacity building, attachment training, analysis and reports completed (market and creel assessment) – 5 Nauru local Fisheries Officers were trained on Creel Survey Method.	Completed
		Country 2 in water invertebrate resources field assessment, capacity development (including attachments), data entry, analysis and reporting undertaken	On Track
		Nauru Biological work including otolith reading, capacity development and attachment training	On Track



<i>Science &amp; Management (cont'd)</i>	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Climate Change adaptation pilot sites identified, established, workplans developed and adaptation activities implemented in Nauru	On Track
<i>Data Management</i>	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	Training attachments at SPC in data management principles and database systems provided for member-country fisheries officers	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Nauru Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national oceanic fishery monitoring to meet national and international obligations</i>	In-country technical support for tuna and artisanal data systems in Nauru	Completed
		In-country technical support for tuna and artisanal data systems in Nauru	Completed
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for Nauru on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Report updated on Fish Aggregating Device (FAD) closures for Nauru	Completed
		Report completed on purse seine bycatch and catch retention for Nauru	Completed
<b>Niue</b>			
<i>Nearshore</i>	<i>Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills</i>	Economic tourist surveys conducted in Niue to implement sport fishing tourism monitoring framework	On Track
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
		Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track

<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for Niue on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Country-specific model developed for Niue to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
<b>Northern Mariana Islands</b>			
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i> <i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal developed for accessing Climate Change Seapodum ecosystem information	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
<b>Palau</b>			
<i>Aquaculture</i>	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	Aquaculture programme needs assessment completed in Palau to follow up on national official requests	Completed
<i>Nearshore</i>	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	National fishing associations sustainable and active in Palau with sustainability strategy and plan developed and implemented	Completed
		Strengthened FAD programme in Palau – FADs deployed, fishing skills workshop scheduled for September 2013	Completed
<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Palau biological work including otolith reading, capacity development and attachment training	On Track
		Palau in water invertebrate resources field assessment, capacity development (including attachments), data entry, analysis and reporting undertaken – Working on report at present	Completed
		Palau baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.	On Track
		Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed

<i>Science &amp; Management (cont'd)</i>	<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangement.	On Track
		Assist the Bureau of Marine Resources to develop a Strategic Plan for the Bureau in collaboration with The Nature Conservancy and other stakeholders – Strategic Plan developed for Bureau of Marine Resources and ready to go to Congress for acceptance	On Track
<i>Data Management</i>	<i>The oceanic fisheries management initiatives of FFA and other sub-regional fisheries organisations are supported by efficient and cost-effective data management services</i>	Tuna Fisheries Database Management for Monitoring, Control, and Surveillance System enhanced as a result of in-country technical assistance visit	Completed
	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	Data quality and coverage audits of member country tuna fishery data (LOGSHEET, UNLOADING and PORT SAMPLING) conducted during in-country visits and at SPC according to established procedures and agreed schedule, and outcomes of audits conveyed	On Track
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Palau Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track	
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for Palau on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Giant clam farmers are organised into cluster groups to improve efficiency in operation & production	On Track

<i>Papua New Guinea</i>			
<i>Aquaculture</i>	<i>Competent authorities with strengthened capability using science-based approaches to manage aquatic biosecurity risks and to facilitate trade</i>	Report on the current status of viral pathogens in <i>Macrobrachium</i> prawns in PNG.	Completed
	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Technical assistance provided on sea cucumber and other mariculture methodologies to improve capacity on mariculture development (3 years) in PNG	On Track
		Aquaculture feasibility report and workshop completed, based upon hatchery and pond trials of the prawn <i>Macrobrachium spinipes</i> indigenous to PNG	On Track
<i>Nearshore</i>	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	SME market supply chain reviewed with recommendations for improvements to marketing practices in small-scale tuna fisheries sector	Completed
		Technical advice provided to strengthen structure and develop policy of national fishing association	On Track
	<i>To develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods, and economic growth and climate change adaptation</i>	Fish waste utilization project supported in PICTs to improve livelihoods and the environment – Advice on fish silage production and marketing to one private operator, possible follow-up (TA) in 2014	On Track
	<i>Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills</i>	National economic assessment of fisheries, aquaculture or climate change adaptation projects/ businesses conducted	Completed
	<i>Improved seafood quality standards and value-adding for exports</i>	Technical assistance and advice provided to Competent Authority/Fisheries Administration in PNG – Review on Competent Authority in Mar 13, ensure compliance with EU market access. Shortfalls identified, work with FFA DevFish 2 for TA. Ensure PNG continues export to EU markets. Training on thermal processing for future training of fish canning operators	On Track
	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	Fisheries diversification project implemented – Bagan baitfishing in Kavieng, PNG to transfer fishing effort from reef fish to more resilient marine resources	Completed

<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
		PNG baseline assessments and monitoring report completed for the aquarium trade and capacity development and attachment training provided in Noumea	On Track
		Post larval capture and culture assessments, export trials and reporting for invertebrates and finfish completed for PNG	On Track
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	PNG biological work including otolith reading, capacity development and attachment training	On Track
	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	PNG attachment training on otolith reading (in collaboration with IRD) and other biological sampling	On Track
<i>Data Management</i>	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	TUBS in Papua New Guinea supported	Completed
		Fisheries Observer Data quality and coverage audit in PNG completed	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track
		PNG web portal for accessing Climate Change PNG Tuna Tagging Programme Information	On Track
		PNG Tuna Tagging Cruise Reports for 2013 campaigns	Completed
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	PNG Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems		On Track	
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national capacity in fisheries monitoring</i>	Basic observer training course conducted for Papua New Guinea in Kavieng.	Completed

<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report updated on Fish Aggregating Device (FAD) closures for PNG	Completed
		Country-specific model developed for PNG to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
		Report completed for PNG on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Report completed on purse seine bycatch and catch retention for PNG	Completed
		Technical support provided to PNG to support tuna plan development and limit setting	Completed
	<i>Enhanced capacity to interpret stock assessment information and advice</i>	Attachment completed from Papua New Guinea to work on country website and stock assessment-related analyses	Completed
		Support provided to PNG as the WCPFC Scientific Committee Chair	Completed
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Seaweed production in Bougainville and fish production in Yonki are improved	On Track
		Commercial tilapia pond farmers are organised into cluster groups to improve efficiency in operation & production	On Track
<b>Pitcairn</b>			
<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Pitcairn baseline assessments and monitoring report completed for the aquarium trade.	Completed
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Mariculture hatchery facilities established in Samoa	Completed
<b>Samoa</b>			
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Develop national capacity to implement a trial of freshwater prawn <i>M. lar</i> capture based culture in Samoa	Completed
<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Climate Change adaptation pilot sites identified, established, workplans developed and adaptation activities implemented in Samoa – Some delays but work progressed in August	On Track

<i>Science &amp; Management (cont'd)</i>	<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangements	Completed
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Country in water invertebrate resources field assessment, capacity development (including attachments), data entry, analysis and reporting undertaken	Completed
		Samoa biological work including otolith reading, capacity development and attachment training	On Track
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Samoa web portal completed for deep water snapper fishery information	On Track
	<i>National ecosystem-based management of oceanic fisheries is supported by the best scientific information and advice</i>	Tuna Fisheries Artisanal Data Management System provided to Samoa for deep water snapper	On Track
		Co-supervision provided to Masters student from Samoa	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track	
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Updated country website for Samoa which provides easy country access to key fishery statistics	Completed
		Report completed for Samoa on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
<b>Solomon Islands</b>			
<i>Aquaculture</i>	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Collaboration in Solomon Islands Ministry of Fisheries and Marine Resources and WorldFish inland aquaculture research, and supervision of 3 post-graduate students on project, over 3 year period	On Track

Nearshore	<i>Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level</i>	Assistance provided to develop sport fishing tourism in Solomon Islands – Assistance scheduled for September 2013 – training of guides on Papatara Island (Isabel Province) in fly-fishing, identification of other sport fishing development opportunities	Completed
	<i>Improved seafood quality standards and value-adding for exports</i>	Technical assistance and advice provided to a fisheries private enterprise in Solomon Islands	Completed
	<i>Improved seafood quality standards and value-adding for exports</i>	Technical assistance and advice provided to Competent Authorities/Fisheries Administration in Solomon Islands – Conducted thermal process validation of Soltuna Tuna LTD canning operation as part of Competent Authority regulatory work – To ensure public health is protected through safe processing of canned food, and continue economic sustainability	Completed
Science & Management	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Climate Change adaptation pilot sites identified, established, workplans developed and adaptation activities implemented in Solomon Islands – This is part of a multi-donor, multi-agency initiative	On Track
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Solomon Islands baseline assessments and monitoring report completed for the aquarium trade and capacity development provided	On Track
	<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangements	Completed
Data Management	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	Fisheries Observer Data quality and coverage audit in Solomon Islands completed	Completed
		On-site installation of latest Tuna Fisheries Database Management System with data review completed	Completed
		TUBS in Solomon Islands supported	Completed
		Data quality and coverage audits of member country tuna fishery data (LOGSHEET, UNLOADING and PORT SAMPLING) conducted during in-country visits and at SPC according to established procedures and agreed schedule, and outcomes of audits conveyed	On Track



<i>Data Management (cont'd)</i>	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	National tuna fishery data management staff receive in-country training in using SPC-developed database systems	On Track
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Solomon Islands Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Solomon Islands web portal for accessing tuna tagging programme information	On Track
		Country-specific web portal developed for accessing Climate Change Seapodum ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national capacity in fisheries monitoring</i>	Debriefing training course conducted for Solomon Islands in Honiara.	Completed
		Longline observer upgrade course conducted for Solomon Islands in Honiara.	Completed
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Updated country website for Solomon Islands to provide easy country access to key fishery statistics	Completed
		Report completed for Solomon Islands on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Report updated on Fish Aggregating Device (FAD) closures for Solomon Islands	Completed
		Report completed on purse seine bycatch and catch retention for the Solomon Islands	Completed
		Country-specific model developed for Solomon Islands to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
<b><i>Tokelau</i></b>			
<i>Science &amp; Management</i>	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Training provided in surveying, data analysis, and development of management arrangements to improve sustainable management of sea cucumbers and other invertebrate resources.	Completed

<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Report completed for Tokelau on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Country-specific model developed for Tokelau to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
<b><i>Tonga</i></b>			
<i>Science &amp; Management</i>	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Customised market and creel survey database developed for Tonga	Completed
		Tonga biological work including otolith reading, capacity development and attachment training	On Track
		Tonga baseline assessments and monitoring report completed for the aquarium trade and capacity development and attachment training provided in Noumea	On Track
		Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
		Tonga field testing and capacity building, analysis and reports completed (market and creel assessment)	Completed
<i>Data Management</i>	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	Training attachments at SPC in data management principles and database systems provided for member-country fisheries officers	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>National ecosystem-based management of oceanic fisheries is supported by the best scientific information and advice</i>	Tuna Fisheries Artisanal Data Management System provided to Tonga for deep water snapper	On Track
	<i>National ecosystem-based management of oceanic fisheries is supported by the best scientific information and advice</i>	Co-supervision provided to Masters student from Tonga	On Track

<i>Ecosystems Monitoring &amp; Assessment (cont'd)</i>	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Tonga Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Tonga web portal completed for deep water snapper fishery information	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodum ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national capacity in fisheries monitoring</i>	Refresher observer training course conducted for Tonga in Nuku'alofa.	Completed
<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Country-specific model developed for Tonga to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
		Report completed for Tonga on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Technical support provided to Tonga to support Total Allowable Catch (TAC) setting	Completed
<b>Tuvalu</b>			
<i>Nearshore</i>	<i>Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills</i>	National training conducted in fisheries financial management, economics, project management and governance for Tuvalu – Planned for November 2013	On Track
	<i>To develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods, and economic growth and climate change adaptation</i>	Strengthened FAD programme in Tuvalu	Completed

<i>Science &amp; Management</i>	<i>Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments</i>	Tuvalu attachment training on otolith reading (in collaboration with IRD) and other biological sampling	On Track
		Reporting completed on Climate Change monitoring including attachment training in Noumea for Tuvalu	Completed
		Tuvalu pilot site re-survey completed, capacity development provided in survey methods and temperature loggers and data maintained	Completed
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
<i>Data Management</i>	<i>Enhanced national oceanic fishery data management to meet national requirements and international obligations</i>	Data quality and coverage audits of member country tuna fishery data (LOGSHEET, UNLOADING and PORT SAMPLING) conducted during in-country visits and at SPC according to established procedures and agreed schedule, and outcomes of audits conveyed	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Lab analyses of tuna stomachs completed	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Tuvalu Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodym ecosystem information	On Track
<i>Fisheries Monitoring</i>	<i>Enhanced national capacity in fisheries monitoring</i>	National tuna data workshop conducted in Tuvalu	Completed

<i>Stock Assessment</i>	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Updated country website for Tuvalu to provide easy country access to key fishery statistics	Completed
		Report completed for Tuvalu on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Report completed on purse seine bycatch and catch retention for Tuvalu	Completed
		Report updated on Fish Aggregating Device (FAD) closures for Tuvalu	Completed
		Longline Vessel Day Scheme workshop conducted in Tuvalu	Completed
<b>Vanuatu</b>			
<i>Aquaculture</i>	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	Updated National Aquaculture Plan completed for Vanuatu	Completed
	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	Report completed on training activities and results (year 1 of 3) of JICA funded Part II Grace of the Sea Mariculture Project in Vanuatu – On-going technical assistance	On Track
		Technical assistance and equipment provided for freshwater hatchery development	Completed
	<i>Competent authorities with strengthened capability using science-based approaches to manage aquatic biosecurity risks and to facilitate trade</i>	Review of national biosecurity bill completed to incorporate aquatic biosecurity component	Completed
	<i>Increased skills &amp; knowledge base to maximise the return on investments in aquaculture</i>	In-country consultation conducted and report completed providing recommendation for Vanuatu's involvement in the new RESCCUE Project	Completed
	<i>Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs</i>	National aquaculture legislation developed for Vanuatu – Two national consultations done, one with FFA	Completed

<i>Science &amp; Management</i>	<i>Enhanced community-based approaches &amp; national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation</i>	Advice provided for institutional strengthening for Vanuatu – Assessment report developed jointly with FFA on institutional needs of the fisheries department.	On Track
		Assistance and advice provided in national policy development, regulation/legislation reviews/management arrangements	On Track
		Advice provided for institutional strengthening studies	On Track
	<i>Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources</i>	Micro servers installed, national coastal fisheries database (including information and GIS) developed and maintained and capacity development/attachment training provided	Completed
		Vanuatu baseline assessments and monitoring report completed for the aquarium trade and capacity development provided.	On Track
<i>Data Management</i>	<i>Enhanced national capacity in oceanic fishery data management and data use</i>	National tuna fishery data management staff receive in-country training in using SPC-developed database systems	Completed
<i>Ecosystems Monitoring &amp; Assessment</i>	<i>National ecosystem-based management of oceanic fisheries is supported by the best scientific information and advice</i>	Tuna Fisheries Artisanal Data Management System provided to Vanuatu for deep water snapper	On Track
		Co-supervision provided to Masters student from Vanuatu	On Track
	<i>Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management</i>	Vanuatu web portal completed for deep water snapper fishery information	On Track
	<i>Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation</i>	Vanuatu Summary report on oceanic ecosystems updated to include Climate Change summary	On Track
	<i>Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management</i>	Country-specific web portal developed for accessing Climate Change Seapodum ecosystem information	On Track
		Country-specific web portal completed to improve access to information on climate change impacts on oceanic ecosystems	On Track

Stock Assessment	<i>National tuna oceanic fisheries policy and decision-making are informed by the best science-based stock assessments and advice</i>	Updated country website for Vanuatu to provide easy country access to key fishery statistics	Completed
		Report completed for Vanuatu on interactions between artisanal and commercial fishing including an assessment of artisanal data collection	Completed
		Country-specific model developed for Vanuatu to translate catch, effort, and capacity limits in albacore longline fisheries	Completed
		Technical support provided to Vanuatu to support Total Allowable Catch (TAC) setting	Completed

### FAME SUBREGIONAL WORK 2013

Section	Strategic Objective	Planned Output	Status	Beneficiaries
Fisheries Monitoring	Enhanced national capacity in fisheries monitoring	13th Regional Observer Coordinators Workshop	Completed	Fiji, Papua New Guinea, Nauru, Solomon Islands, Federated States of Micronesia, Marshall Islands
		Basic observer training course conducted for Cook Islands, Fiji, Nauru, Tokelau, Tonga, Tuvalu in Santo.	On Track	Fiji, Cook Islands, Tuvalu, Tokelau, Vanuatu, Nauru
		Basic observer training course conducted for Federated States of Micronesia, Kiribati, Marshall Islands, Palau in Majuro.	Completed	Federated States of Micronesia, Kiribati, Palau, Marshall Islands
		Basic observer training course conducted for Fiji, Niue, Samoa, Tokelau, Tonga, Tuvalu in Suva.	Completed	Tuvalu, Fiji, Niue, Tonga, Samoa, Tokelau
		Debriefing training course conducted for Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Tonga in Pohnpei.	Completed	Federated States of Micronesia, Tonga, Kiribati, Nauru, Marshall Islands, Palau
		Marine Stewardship Council (Chain of Custody requirement for free school skipjack tuna) observer training courses conducted for Federated States of Micronesia, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands.	On Track	Nauru, Tuvalu, Marshall Islands, Palau, Federated States of Micronesia, Solomon Islands, Kiribati
		Refresher observer training course conducted for Papua New Guinea and Tuvalu in Funafuti.	Completed	Papua New Guinea, Tuvalu

Fisheries Monitoring (cont'd)	Enhanced national capacity in fisheries monitoring (cont'd)	Regional Observer Trainers Workshop	Completed	Fiji, Federated States of Micronesia, Solomon Islands, Nauru, Marshall Islands, Papua New Guinea
	Enhanced national oceanic fishery monitoring to meet national and international obligations	MOUs developed and updated with members for the provision of technical support and funding of sampling programmes	On Track	Cook Islands, Tuvalu, Kiribati, Samoa, Vanuatu
Aquaculture	Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs	A framework for collaboration in aquaculture developed for Melanesian Spearhead Group Members (MSG)	Completed	Vanuatu, New Caledonia, Solomon Islands, Fiji
	Competent authorities with strengthened capability using science-based approaches to manage aquatic biosecurity risks and to facilitate trade	A Micronesia subregional biosecurity framework developed – Workshop conducted	Completed	Guam, Palau, Nauru, Northern Mariana Islands, Marshall Islands, Federated States of Micronesia
	Increased skills & knowledge base to maximise the return on investments in aquaculture	Knowledge maintained and updated on opportunities for freshwater fisheries and culture based fisheries	On Track	Vanuatu, Solomon Islands, Fiji, New Caledonia
		Subregional training workshops conducted in fish broodstock management and fish-feeds formulation and production	Completed	Solomon Islands, Samoa, Fiji, Vanuatu, Cook Islands
Ecosystems Monitoring & Assessment	Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management	Annual report completed detailing implementation of logbook, observer and port sampling systems and research cruises to collect biological information	On Track	Vanuatu, Samoa, Tonga, New Caledonia
		Separate RMI and FSM web portal for accessing tuna tagging programme information	On Track	Marshall Islands, Federated States of Micronesia



Ecosystems Monitoring & Assessment (cont'd)	Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation	FFA Summary report on oceanic ecosystems updated to include Climate Change summary	On Track	Tonga, Tuvalu, Fiji, Samoa, Niue, Cook Islands, Nauru, Papua New Guinea, Palau, Marshall Islands, Federated States of Micronesia, Tokelau, Vanuatu, Solomon Islands, Kiribati
		PNA Summary report on oceanic ecosystems updated to include Climate Change summary	On Track	Solomon Islands, Federated States of Micronesia, Marshall Islands, Papua New Guinea, Palau, Kiribati, Nauru, Tuvalu
	Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management	Joint CNMI/Guam skipjack resource evaluation	On Track	Guam, Northern Mariana Islands
Data Management	Enhanced national oceanic fishery data management to meet national requirements and international obligations	Established and maintained National Information Management Systems (IMS) systems for member countries, in collaboration with FFA	Delayed	Cook Islands, Papua New Guinea
Nearshore	Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills	Assessment of economic opportunity cost of mis-management of sea cucumber fisheries and recommendation for economic (trade) management measures – report, policy brief, HoF presentation, implementation plan – HoF presentation, MSG presentation, report and implementation plan completed and policy brief should be finished before CRGA.	On Track	Papua New Guinea, Fiji, Vanuatu, Solomon Islands

Nearshore (cont'd)	Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level	Fishing vessel crew certification review undertaken	Completed	Tuvalu, Marshall Islands, Palau, Tonga, Solomon Islands, Papua New Guinea, Tokelau, Nauru, Cook Islands, Vanuatu, Federated States of Micronesia, Fiji
		Industrial attachment organised for one SME on sanitary requirements for exports expansion	On Track	Palau, Tokelau, Tuvalu, Federated States of Micronesia, Solomon Islands, Vanuatu, Nauru, Tonga, Marshall Islands, Cook Islands, Fiji, Papua New Guinea
		Industrial attachment organised for one SME on sanitary requirements for exports expansion	On Track	Palau, Tokelau, Tuvalu, Federated States of Micronesia, Solomon Islands, Vanuatu, Nauru, Tonga, Marshall Islands, Cook Islands, Fiji, Papua New Guinea
		Pilot projects undertaken to demonstrate mobile phone technology for small boat safety	Completed	Vanuatu, Nauru, Timor-Leste, Marshall Islands, Cook Islands, Tuvalu, Papua New Guinea, Solomon Islands, Federated States of Micronesia, Tokelau, Fiji, Palau, Tonga
		Regional fishing association sustainability strategy and plans developed and implemented	On Track	Palau, Nauru, Vanuatu, Federated States of Micronesia, Solomon Islands, Marshall Islands, Cook Islands, Samoa, Papua New Guinea, Tonga, Tuvalu, Timor-Leste, Fiji, Kiribati, Niue
		Solar power upgrade promoted to strengthen small-scale tuna fisheries sector	On Track	Kiribati, Tuvalu
		Training in fish handling provided to SMEs, associations and artisanal fishers to meet sanitary requirements of importing countries	On Track	Tonga, Marshall Islands, Palau, Papua New Guinea, Solomon Islands, Fiji, Vanuatu, Cook Islands, Tokelau, Nauru, Federated States of Micronesia, Tuvalu

Science & Management	Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources	Funding provided for capacity development in ciguatera analysis methodology	Completed	Tuvalu, Kiribati, Cook Islands
		Regional databases for all coastal fisheries data established, upgraded, maintained.	On Track	Papua New Guinea, Tonga, Solomon Islands, Marshall Islands, Kiribati, Timor-Leste, Cook Islands, Fiji, Nauru, Federated States of Micronesia, Samoa, Palau, Tuvalu, Vanuatu, Niue
Stock Assessment	FFA and subregional oceanic fisheries management initiatives are supported by the best science-based stock assessments and advice	Technical advice provided and reports presented to Te Vaka Moana	Completed	Samoa, Tokelau, Cook Islands, Niue, Tonga
		Technical support provided and presentations made to the meetings of the Forum Fisheries Committee (FFC) including support for bio-economic modelling and analysis of management options	Completed	Cook Islands, Tuvalu, Tokelau, Solomon Islands, Marshall Islands, Kiribati, Federated States of Micronesia, Niue, Nauru, Samoa, Fiji, Vanuatu, Papua New Guinea, Palau, Tonga
		Technical support provided and reports presented to the Parties to the Nauru agreement (PNA)	Completed	Marshall Islands, Solomon Islands, Kiribati, Nauru, Palau, Tuvalu, Federated States of Micronesia, Papua New Guinea
		Technical support provided and reports presented to the Sub-committee for South Pacific Tuna and Billfish (SC-SPTBF)	Completed	Vanuatu, Samoa, Tokelau, Niue, Tuvalu, Fiji, Tonga, Papua New Guinea, Cook Islands, Solomon Islands

**FAME REGIONAL WORK 2013**

Section	Strategic Objective	Planned Output	Status
<b>Regional Interventions</b>			
Coastal Fisheries	Coastal Fisheries Programme	CFP/FAME is represented at regional/subregional fisheries meetings/forums	Not Started
Aquaculture	Increased skills & knowledge base to maximise the return on investments in aquaculture	Advice provided on introductions and quarantine requirements on aquaculture.	On Track
		Subregional training workshops conducted in seaweed farming, fish broodstock management, fish-feeds formulation and production, and milkfish capture-based culture – Tailor made subregional training organised for participants	Completed
		Regional Aquaponics Experts Consultation workshop and report completed to review current status, future potential, and researchable constraints of aquaponics in PICTs	Completed
		Fact sheets published on regional aquaculture commodities and disseminated to PICTs	On Track
		Outcomes of SPC independent studies, conference and workshop proceedings are published	On Track
	Improved strategic policy, planning, and administration of the aquaculture sector to meet current and future needs	Aquaculture portal up to date with aquaculture information and publications	On Track
		Presentation and report from SPC for FAO – Report produced	On Track
		Policy briefs completed on outcome of regional aquaculture assessments studies – Policy brief on mariculture development done	Completed
		Participated in Regional FAO Aquaculture meetings and workshops as part of collaboration to improve effectiveness of implementation of aquaculture activities	On Track
		Presentation and report on SPC aquaculture activities at Network of Aquaculture in Asia and Pacific (NACA)	On Track
Nearshore	To develop sustainable nearshore fisheries in PICTs to provide food security, livelihoods, and economic growth and climate change adaptation	Publication and dissemination of resource materials on fisheries economics to SPC member countries	On Track
		Fish waste utilization promoted and facilitated in the region to improve livelihoods and the environment – Policy brief in final draft form and should be printed before CRGA.	On Track
		Regional technical assistance provided to strengthen FAD programmes for the region – Reprint of FAD posters completed	On Track

Nearshore (cont'd)	Improved capacity for subsistence, artisanal, sport and industrial fishing activities within the sustainable production level	Assistance provided to develop sport fishing tourism in the region to improve livelihoods through introduction of non-destructive fishing operations	Completed
		2013 practical safety, fishing and financial management course for Fisheries Officers conducted to improve fishing vessel operations and small boat safety practices – Scheduled for October 2013	Completed
		Regional work in fisheries diversification to transfer fishing effort from reef fish to more resilient marine resources – Squid fishing trials in CI, bagan fishing trials in PNG, fishing method workshops done in KI (Tarawa and Kiritimati), TUV, FSM (Yap), Palau, American Samoa	Completed
	Improved economic viability of fisheries investments through analysis, evaluation and capacity building in financial skills	Regional training in financial management, economics, project management and governance conducted at Nelson Marlborough Institute of Technology	Completed
Nearshore (cont'd)	Improved seafood quality standards and value-adding for exports	Technical assistance and advice provided to a fisheries private enterprise in Fiji – Documented food safety management systems for Tripacific Marine Products to comply with Canada market access requirements. Pending trade contracts to be approved between the importer and exporter on export of pouched tuna products	Completed
Science & Management	Enhanced coastal fisheries management policies and systems based where possible on scientific assessments of the status of national coastal marine resources	Finfish underwater visual census manual finalised and published	Delayed
		An invertebrate survey manual finalised and published	Completed
		Coastal fisheries awareness, educational, information materials produced and distributed	On Track
		Coastal fisheries creel and market survey manual developed and published	Completed
		Assistance provided to MSG for sea cucumbers and coastal fisheries workshops – Sea cucumber assessment completed by consultants. Workshop scheduled for October to develop 'roadmap for the protection of inshore resources'	On Track
		Aquarium trade awareness, education and information materials developed and distributed; and workshops organised	On Track
		SPC represented at sub-regional, regional and international aquarium trade workshops or meetings	On Track
		Create specific database as required for Pacific ACP countries	On Track
Representation at subregional and regional resources assessment and/or climate change workshops or meetings	Completed		

Science & Management (cont'd)	Enhanced capacity of coastal communities to respond effectively to climate change and improved assessment of climate change impacts on marine environments	SPC represented at subregional, regional and international climate change and/or community based management workshops or meetings	On Track
	Enhanced community-based approaches & national management arrangements, incorporation of ecosystem-based principles, and coastal fisheries legislation	CFP/FAME is represented and input provided at subregional, regional or international meetings/workshops relating to coastal fisheries management	On Track
Directors Office	Stakeholders in PICTs are fully informed of the results of SPC activities, and share experience and knowledge across the region	An updated fully searchable digital library with all FAME publications available in digital format is produced on a DVD, which is available for distribution throughout the region	On track
		FAME annual report, revised strategic plan, and other corporate documents are laid out, printed and distributed	Completed
		Improved information skills in one national fisheries department	On track
		Full Heads of Fisheries meeting conducted	Completed
		3 issues of the SPC Fisheries Newsletter are published in English and French in colour, publicising FAME activities.	On track
		Awareness materials or policy-related documents are produced for the region	On track
		Replies to ad hoc requests for fisheries-related info	On track
		An updated version of SPC Fisheries Address Book, which gives access to more than 1700 regional fishery-related contacts, is produced and distributed	Completed
		Information & communication materials on fisheries distributed to at least 5 countries	On track
		6 issues of SPC Special Interest Group Information Bulletins covering important marine resource issues, are published in French and English	On track

Directors Office (cont'd)	Effective working relationships maintained with other regional agencies and development partners	No. of climate change projects undertaken jointly with other divisions or agencies	On track
		FAME fully represented in executive management of SPC; new corporate policies and decisions agreed	On track
		Attendance at FFC Ministerial meeting	Completed
		FFA/SPC colloquium held	Completed
		Melanesian Spearhead Group Fisheries Technical Advisory Committee meeting	Completed
		Follow-up project to PACE-NET developed, strengthened relationship with UN University and the Intergovernmental Panel on Climate Change (IPCC)	On track
		Marine Sector Working Group meeting held twice during the year with submissions developed for CROP Heads and Forum.	On track
		Responding to ad hoc requests for information including minor projects and consultancies	On track
	Programme plans and activities respond to the needs and priorities of members	FAME components of new JCS are well designed, and JCS documents are used as the basis for activity planning in 2013	On track
		Oceanscape initiative gap analysis and funding proposals developed.	On track
	Policy-makers and the general public are better informed of marine resource issues, climate change impacts, the importance of fisheries and the need for management action	Four new SPC 'policy briefs' on key fisheries issues distributed; around 1 major media release per month.	On track
		FAME communication plan for 2013 implemented	On track
		FAME and CFP websites are continually updated and improved, with all new FAME-produced documents posted on the website	On track
	Data Management	The oceanic fisheries management initiatives of FFA and other sub-regional fisheries organisations are supported by efficient and cost-effective data management services	Fisheries data-related reports, meeting papers and data summaries prepared and provided to subregional organisations (FFA, PNA and TVM) according to agreed requirements/schedules, and any ad hoc requests
Enhanced national capacity in oceanic fishery data management and data use		Regular updates of CES data system incorporating logsheet data, catch by EEZ and public domain data provided to subregional organisations (FFA Secretariat, PNA Office and Te Vaka Moana (TVM) Secretariats)	Completed

Data Management (cont'd)	Enhanced national capacity in oceanic fishery data management and data use (cont'd)	The Universal Vessel Identifier (UVI) is incorporated into each regional version of the VESSEL databases to improve consistency between regional databases	Completed
		Monitoring, control and surveillance capabilities to identify IUU fishing are available in member country database systems	On Track
		New network servers and related equipment and network auditing provided to countries to improve their fisheries IT infrastructure for managing data	On Track
		National support provided upon request including data summaries and advice during WCPFC meetings.	On Track
		Training resources for SPC-developed database systems developed and available to users	On Track
		The Seventh Annual Tuna Data Workshop (April 2013) develops national fisheries staff capacity to (i) produce annual catch estimates and (ii) improve skills in managing tuna data and extracting data summaries – 28 participants	Completed
		The first Regional Tuna Fisheries Observer Data Management System Data Viewer workshop conducted to introduce participants to a tool for producing observer data summaries	Delayed
Data Management	Enhanced national oceanic fishery data management to meet national requirements and international obligations	Logsheet, observer, port sampling and unloading data (in hard-copy or electronic form) from member countries registered, entered, verified, imported, quality-controlled and provided back to member countries in a timely manner	On Track
		E-reporting initiatives for collecting tuna data identified, funded, then successfully trialled with reports and recommendations available	On Track
	WCPFC is provided with efficient and cost-effective data management services to support regional oceanic fisheries	WCPFC Regional Observer Programme data entered, verified (data quality control) and made available for WCPFC work in a timely manner	On Track
		Regional Observer Programme/tuna fisheries observer database system (TUBs) regularly maintained and supported at WCPFC offices including training of WCFPC ROP data entry staff	On Track
		Advice on its data-related procedures is provided to the Western and Central Pacific Fisheries Commission (WCPFC) Secretariat, as required	On Track
		WCPFC scientific data prepared and disseminated to the Secretariat, WCPFC members and others according to the WCPFC data rules and procedures	Completed
		WCPFC scientific data-related reports, meeting papers/presentations and web pages produced/updated according to agreed objectives and schedules.	Completed



	National ecosystem-based management of oceanic fisheries is supported by the best scientific information and advice	Web-based outreach	On Track
	Improved knowledge of the impacts of climate change on oceanic ecosystems to inform adaptation	Technical training of attachments completed on assessing the impacts of climate change on oceanic ecosystems	On Track
		Scientific paper on projected effects of Climate Change on South Pacific albacore tuna	On Track
		Report submitted to Western Central Pacific Fisheries Commission Scientific Committee on using alternative oceanographic climate forcing	Completed
		Scientific paper completed on the impacts of increasing atmospheric CO <sub>2</sub> on oceanic ecosystems	On Track
Ecosystems Monitoring & Assessment	Enhanced data on the biological characteristics of oceanic species and their environment are available to support stock assessment and ecosystem-based fisheries management	Lab analyses of tuna stomachs completed	On Track
		Five peer reviewed scientific papers completed on tuna biology parameters for stock and ecosystem models	On Track
		Paper submitted to the Western Central Pacific Fisheries Commission (WCPFC) Scientific Committee detailing implementation of the PNG Tagging Programme, updated database including data validation, scientific papers on mixing rates, horizontal and vertical	Completed
		Scientific paper on ageing skipjack tuna completed	Completed
	Regional oceanic fisheries policy and decision-making by WCPFC is informed by science-based information and advice on ecosystem issues	Database updated & annual report completed for presentation to WCPFC Scientific Committee in August 2013	Completed
	Appropriate ecosystem models and analyses are available to inform ecosystem-based fisheries management	Scientific paper on incorporation of tagging data into SEAPODYM	Completed
		Scientific papers completed on (1) the use of Seapodym in fisheries management and (2) applications of the model to albacore	On Track
		Annual report to Tuna Regional Fisheries Management Organisations	Completed
Fisheries Monitoring	Enhanced national capacity in fisheries monitoring	Annual Regional Tuna Data Workshop conducted	Completed

	Enhanced national oceanic fishery monitoring to meet national and international obligations	Data collection forms, sampling manuals, species guides, training videos, newsletters and related information prepared and distributed to fisheries observers	On Track
		Competency Based Training (CBT) and other Pacific Islands Regional Fisheries Observer (PIRFO) standards developed, and other technical support provided to national observer programmes	On Track
		Documentation of the standard spill sampling protocol – Working paper submitted to the WCPFC Scientific Committee (SC9-ST-WP-02.)	Completed
		Comparison of species compositions determined from observer grab and spill samples, and port sampling of landing categories at Noro, Solomon Islands	On Track
Fisheries Monitoring (cont'd)	WCPFC is provided with efficient and cost-effective fishery monitoring and analytical services to support regional oceanic fisheries management	Estimation updated of selectivity bias based on paired spill and grab samples collected by observers on purse seiners – Working paper submitted to the WCPFC Scientific Committee (SC9-ST-WP-03.)	Completed
		Paired spill and grab sampling experiments conducted on purse seiners – Data are available for 41 paired sampling trips and are being processed for 21 trips.	Completed
		Estimates provided of purse-seine catch composition by target species and size	Completed
		Estimates provided of purse-seine catch composition by non-target species	Delayed
Stock Assessment	FFA and subregional oceanic fisheries management initiatives are supported by the best science-based stock assessments and advice	Report identifying the nature and extent of the contraction of the range of yellowfin tuna in the WCPO	Completed
		Bio-economic analyses of the regional longline and purse seine fisheries in the Western and Central Pacific Ocean (WCPO)	Completed
	Regional oceanic fisheries management policy & decision-making by WCPFC are informed by the best science-based stock assessments and advice	Independent review completed of the bigeye stock assessment	On Track
		Analyses of reference points, harvest control rules, and management measures for Western and Central Pacific Ocean (WCPO) fisheries	Completed
		Shark research plan implemented including analyses of bycatch mitigation	Completed
		Technical advice and presentations made to WCPFC meetings	Not Started
		Regional stock assessments and related analyses undertaken for Western and Central Pacific Fisheries Commission (WCPFC): swordfish, blue shark, and silky shark	Completed
Annual Tuna Fisheries Assessment Report (TFAR) produced and distributed to all members	Completed		

Stock assessment (cont'd)	Enhanced capacity to interpret stock assessment information and advice	Workshop on oceanic fisheries stock assessment conducted to enhance capacity of national fisheries staff in understanding results of stock assessments	Completed
Aquaculture	Increased skills & knowledge base to maximise the return on investments in aquaculture	Prototype Aquaponics Unit constructed and operated at SPC Suva as a demonstration of innovative techniques that recycle water and nutrients	On Track
		Technical support provided to increase the number of HACCP compliant aquaculture exporters in terms of process flow systems, equipment, infrastructure design, process method, packaging and labelling, kitchen and processing centres	On Track
		Report produced on importation standards and requirements for key export markets for aquaculture products	Completed



ANNEX 2

**OUTCOMES OF THE 8TH HEADS OF FISHERIES MEETING**

The eighth SPC Heads of Fisheries (HoF) Meeting took place at SPC Headquarters in Noumea, from 4 to 6 March 2013.

The meeting was chaired by the Director of Fisheries for French Polynesia (Mr Stephen Yen Kai Sun). HoF is a regional meeting of the heads of fisheries departments (or their deputies) in SPC member countries and territories. The meeting covers the entire range of interests for which they have responsibility and on which SPC's Fisheries, Aquaculture and Marine Ecosystems (FAME) Division provides advice and assistance. As such, the HoF meeting plays a unique role in providing strategic guidance to the Director's Office, Coastal Fisheries Programme (CFP) and Oceanic Fisheries Programme (OFP) of FAME.

The following outcomes constitute the main points of consensus agreement among delegates that the meeting felt necessary to document, either to guide the management of the FAME work programme, to draw to the attention of other regional agencies and development partners, or to signal agreement on issues that require attention by members themselves, and to inform SPC CRGA.

The meeting was officially opened by Dr. Jimmie Rodgers, SPC Director-General. The agenda of the 8th HOF was adopted with no additional provisions.

**Coastal fisheries**

1. Recognised data limitations in coastal fisheries, and noted CFP's progress in the development of standardised data collection processes, survey manuals and data storage systems. Called for the development of standardised data collection forms and practices to be a focus of future funding proposals.
2. Recognised that food security issues were becoming more critical to PICTs, including as a result of research identifying the impacts of climate change, environmental degradation and population growth. The issue requires effective policy coordination and broad-scale assistance from governments, donor agencies and technical institutions, noting that the gap will continue to increase without effective management.
3. Encouraged the deployment of FADs as a means for addressing food security issues and to provide alternate sources of protein, particularly in ciguatera-prone areas, and supported CFP's continued assistance with FAD deployment and capacity development.
4. Recognized the lack of management and enforcement in coastal fisheries and identified the need to strengthen these areas, including capacity building.
5. Expressed concern over the increase in the number of ciguatera cases and recognized the need for more focus on awareness, general information dissemination, and more resources to address this issue. Suggested that a certification program could be established to identify fish caught in ciguatera-free areas.
6. Recognized the work of CFP in assisting with fisheries-diversification projects, such as the development of fisheries for diamond-back squid, small pelagics, or bluenose, and noted that while such activities may not be viable at an export level they may be suitable for domestic markets.
7. Acknowledged the multi-faceted work areas of CFP and suggested that members be judicious with country requests.

8. Supported work undertaken by CFP in development of sport fisheries and of new products including fish handling DVDs for sport fisheries, and training in tuna handling for sashimi grade product in Tarawa.
9. Called for continued assistance from SPC with developing guidelines for regulation of the aquarium trade.
10. Noted appreciation for the rollout of new coastal fisheries databases and acknowledged that satellite servers in outer provinces would be useful to link with a master server at the head fisheries office.
11. Requested that consideration be given to placing one SPC fisheries person in SPC's North Pacific Regional Office (FSM) if funding for such a position becomes available.
12. Indicated a need for more focus on coastal resources given the importance of these areas for national food security and livelihood.
13. Reaffirmed the need to find funding for a biosecurity officer in the aquaculture programme at SPC.
14. Supported CFPs plans to have an aquaponics consultation in the near future.
15. Expressed support for private-public partnerships, particularly in the aquaculture sector. Suggested that SPC could provide a key facilitating role in the development of these partnerships in this sector.
16. Acknowledged the need for assistance with developing fishing associations in some Pacific Island countries and territories (PICTs) and called for increased economic training.
17. Reaffirmed interest in work on fish waste processing facilities, particularly in terms of economic viability.

### **Oceanic Fisheries**

18. Reaffirmed general support for pelagic stock assessment work from SPC-OFP, OFPs supporting role at regional, subregional, and national levels, and the SEAPODYM model as a forecasting tool. Acknowledged appreciation for adding economic information to projection analyses, with encouragement for more economic indicators.
19. Noted appreciation for country-level support from OFP, specifically work that aided country-level negotiations, FAD closure management decisions, IMS, data entry and TUFMAN and TUF-ART database development, and the training of observers. Affirmed the desire to continue country-level reports, specifically those aimed to assist with country-level management decisions.
20. Noted that the effects of fishing in territorial waters may be an area of future work for PICTs.
21. Agreed that more work to further last year's stalled draft CMM for South Pacific albacore which stalled in WCPFC is needed. Suggested continued cooperation with SCTB and other interested parties to work towards sustainable catch limits for SP albacore.
22. Noted the desire of some members for assistance with measuring an appropriate level of in-country fishing effort in terms of achieving desired economic benefits.
23. Called for country-level catch reporting estimates to be developed in addition to the usual estimates by fleet for the tuna data workshop.
24. Reaffirmed the interest of members in continuing reference point and harvest control rule work on tuna to remain on track with the direction of the WCPFC.

25. Recognized the critical importance of the observer program to oceanic fisheries and the need to secure ongoing funding for this programme, potentially through a user-pays cost-recovery programme or as core SPC/FFA funding. Electronic data collection seen as a key improvement moving forward.
26. Recognized and thanked New Zealand for new funding support.
27. Explained the continued need to have data available on portable disk drives for countries with intermittent internet connections to ensure local data access.
28. Noted the importance of OFP's role in capacity building, particularly for smaller fisheries administrations.
29. Reaffirmed the importance of the continued role of OFP as science service provider to WCPFC, which results in considerable benefit to SPC members through the provision of consistent scientific advice and data from regional through to national level
30. Expressed interest in examining interactions of key species between artisanal and growing sports fisheries and the commercial sector.

#### **Director's Office and Information Unit**

31. Supported the proposal to have a series of rolling strategic plans that are reviewed every two years.
32. Supported the rollout of work from the outcomes of the vulnerability assessment (Bell et al. 2011) on climate change, including four in-country workshops to be completed by June 2013, and noted that long-term indicators will be required to assess the success of climate change-related work activities.
33. Raised concerns regarding the imbalance in resourcing (both staffing and funding) between OFP and CFP, and expressed interest in increasing staffing and funding to CFP.
34. Recommended more concrete measures be put in place for assessing the activities of the FAME Director's Office and suggested review of activities and capacity of government fisheries offices in the region.
35. Identified the general need for more discussion to identify cost-recovery programs.

#### **Export facilitation**

36. Noted certification process involved with exporting into the European market. Informed the meeting that it may be better to adopt a regional approach for export to EU and all could benefit from pooled resources.

#### **Aquaculture biosecurity**

37. Acknowledged with appreciation the concept paper developed by SPC and FAO regarding development of a regional aquatic biosecurity framework for PICTs.
38. Requested SPC's assistance with increasing the knowledge of current pathogens and pest species in countries through the development of country-specific pathogen lists and building capacity in risk analysis through training workshops.
39. Reaffirmed the need to find funding for a biosecurity officer in the aquaculture programme at SPC. Suggested that alignment of the project with OIE provides some scope for accessing funds through the OIE World Fund; however these would likely be for programme funding rather than funding of staff.

40. Recommended a capacity and policy audit be undertaken to assess the current 'state of play' with regards to aquatic biosecurity.

### **Deepwater snapper**

41. Acknowledged with appreciation and supported the work planned and progress made in each of the four key priority areas of the deepwater snapper project (improving fisheries data collection, improving biological knowledge of key species, moving towards improved fisheries assessment and management and increased capacity building).
42. Expressed interest in expanding project to PICTs not currently involved (in particular PNG, which offered support for research activities).
43. Requested consultations between relevant SPC project scientists and national stakeholders to ensure results and management outcomes are clearly understood.
44. Acknowledged with appreciation funding support from AusAID and supported the need for continued funding for this key work area.

### **Management of sea cucumber fisheries**

45. Noted complexities in management and evaluation of the harvest of sea cucumber resources, including the 'boom-bust' cyclical nature of fisheries, and the large increase in prices of high-value species in last 5-10 years. Noted that allowing all species to be harvested opens the door to 'opportunistic exploitation'.
46. Suggested the use of species-specific TACs and that the most effective arena for evaluating harvest would be at the market gate (point of entry into the market). Suggested a comprehensive list of licensing criteria, similar to that currently in use in some PICTs (e.g. PNG), as a way forward at the regional level.
47. Thanked SPC for training assistance in assessing sea cucumber resources, including field surveys, species identification classes, standardisation of survey methods and development of survey manual, involvement of line officers and NGOs in field training, exchange training, attachments for data analysis and reporting. Requested continued assistance in these areas.
48. Recommended conservative management of high-value sea cucumber species, be it through species-specific catch quotas, species-specific bans, or exclusion of high-value species from lists of allowable species.
49. Noted the interesting study by IRD and the Vanuatu Fisheries Department, and the development of a new FAO species catalogue on sea cucumbers.
50. Requested continued SPC assistance in the standardisation of methodologies to collect appropriate data. Recommended development of key reference densities, taking a regional and island-type perspective, based on all available data sources, and requested continued assistance in developing management plans and regulations to ensure compliance.
51. Called for greater transparency and enhanced understanding of market trends for sea cucumbers, including market prices at point of sale.



**Presentations by other organisations**

52. Expressed appreciation for JICA (Japan International Cooperation Agency) working with community-based coastal resource management (CBCRM), including activities on FAD deployment, milkfish aquaculture, and CBCRM programs in Vanuatu and Palau. Acknowledged collaborative technical support from SPC on FAD deployment projects. Noted the request from some PICTs for assistance with their observer programme and with crew training in an attempt to increase local economic benefits (could be conducted in association with the Fisheries and Maritime Institute). Suggested that a formal network or forum be established for practitioners involved in community-based work programmes to share experiences and increase regional collaboration.
53. Under the joint FFA and SPC DEVFISH project, FFA informed the meeting of the development of a draft curriculum for new regional qualification in MCS, which is aimed at oceanic but intended to also include coastal components. The draft curriculum will be passed to the MCS working group for comment later this year.
54. Supported the continued commitment to the Pacific Islands fisheries officer course at the Nelson Marlborough Institute of Technology for regional fisheries training in collaboration with SPC, and their expanded range of facilities and training opportunities. There was particular appreciation for new content such as small business training in collaboration with SPC and with MCS. Informed the meeting of likely new components based on HoF8 discussions, including database management and market and creel surveys, and noted that changes in the curriculum were a result of the 2003 review. Supported the continued funding assistance received from the New Zealand Aid Programme to continue the NMIT regional fisheries training course.
55. FAO explained developments, programmes and activities under ABNJ (Areas Beyond National Jurisdiction), including tuna projects, deep sea projects, the ocean partnership project funded by the World Bank, and the strengthening of global capacity to effectively manage ABNJ. Acknowledged collaborative support from SPC as well as other regional organisations. Noted the joint SPC/FAO meeting on biosecurity in 2012. Acknowledged the importance of deep sea fisheries to some members and the potential for joint projects between FAO's deep sea programme and SPC.

**National tuna web pages**

56. Acknowledged appreciation for the development of the national tuna web pages and for advancements in the SEAPODYM model.
  57. Expressed interest in giving priority to translating certain report pages into French for use by the French territories.
  58. Called for national coastal fishery web pages, similar to those presented for tuna, and requested that donor funding be extended to the coastal component.
  59. Requested training workshops on the use and interpretation of ecosystem models (SEAPODYM).
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