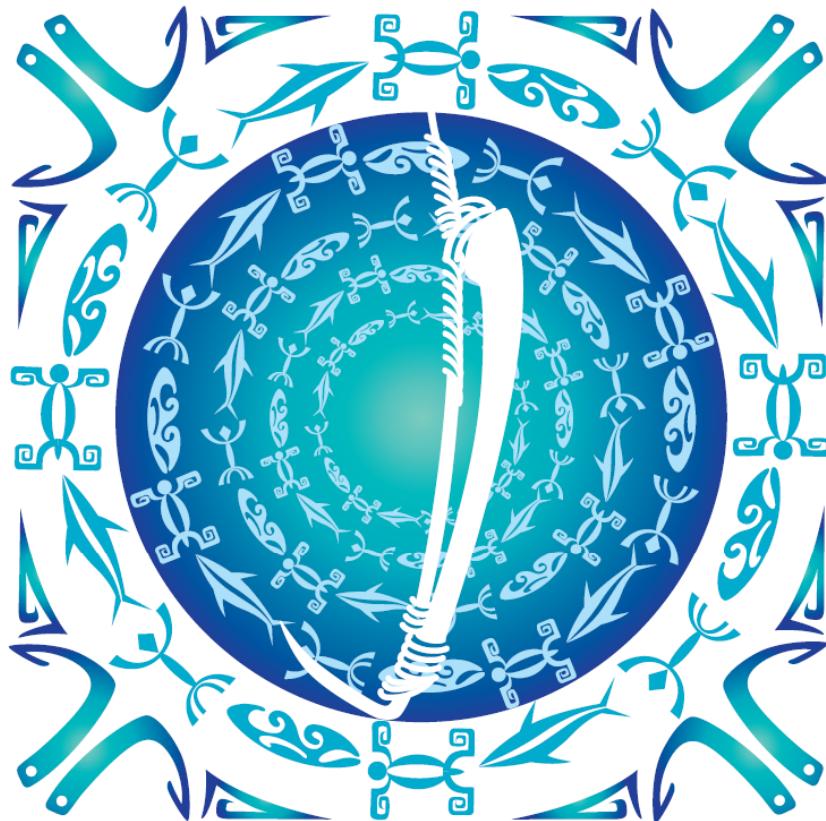


# SciCOFish

SCIENTIFIC SUPPORT FOR THE MANAGEMENT OF COASTAL AND  
OCEANIC FISHERIES IN THE PACIFIC ISLANDS REGION

## Year 3 Progress report and Year 4 Work plan



**DECEMBER 2012**

This project is funded by



European Union  
Union européenne

This project is implemented by



Signature page:

On behalf of the implementing agency, I have pleasure in providing herewith the 2012 annual report and 2013 work plan and cost estimate.

Signed:

Date: 19<sup>th</sup> December 2012



Dr Jimmie RODGERS  
Director-General  
Secretariat of the Pacific Community

Seen and noted on behalf of the European Union

Signed:

Date:

Alistair MacDONALD  
Head of Delegation (Acting)  
Delegation of the European Union for the Pacific

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## LIST OF ABBREVIATIONS

ACP	African, Caribbean and Pacific
CLIOTOP	Climate Impact on Oceanic To Predators
EEZ	Exclusive Economic Zone
EU	European Union
FAD	Fish Aggregating Device
FAME	Fisheries, Aquaculture, and Marine Ecosystems
FFA	Forum Fisheries Agency
FMSY	Fishing Mortality associate with Maximum Sustainable Yield
FSM	Federated States of Micronesia
GIS	Geographic Information Systems
ISNR	Issue Specific National Report
ISSF	International Seafood Sustainability Foundation
IUU	Illegal, Unregulated and Unreported
JCS	Joint Country Strategy
LMMA	Locally Managed Marine Area
MSG	Melanesian Spearhead Group
MSY	Maximum Sustainable Yield
NTFSR	National Tuna Fisheries Status Report
P-ACP	Pacific-African, Caribbean and Pacific
PIRFO	Pacific Islands Region Fisheries Observers
PNA	Parties to the Nauru Agreement
PNG	Papua New Guinea
RIP	Regional Indicative Programme
ROCW	Regional Observer Coordinators Workshop
RWSA	Region-Wide Stock Assessment
SciCOFish	Scientific support for the management of coastal and oceanic fisheries in the Pacific Islands region
SEAPODYM	Spatial Ecosystem and Population Dynamics Model
SPC	Secretariat of the Pacific Community
SPC HQ	Secretariat of the Pacific Community Headquarters (Noumea, New Caledonia)
TUFMAN	Tuna fishery data management system
UVC	Underwater Visual Census
VMS	Vessel Monitoring System
WCPFC	Western and Central Pacific Fisheries Commission
WCPO	Western and Central Pacific Ocean

## INTRODUCTION

The SciCOFish project, « Scientific support, for the management of coastal and oceanic fisheries in the Pacific Islands region », implemented through the Contribution Agreement between the Secretariat of the Pacific Community and European Union, is planned for execution from the 17<sup>th</sup> of April 2010 to the 3<sup>rd</sup> of March 2014, with a budget of 8,655,765 Euros.

Its overall objective, the conservation and sustainable use of coastal and oceanic fisheries resources in the P-ACP region, addresses a key aspect of the Regional Indicative Programme, namely, the development of cost-effective solutions for the sustainable management of marine and land-based resources.

The project purpose is to provide a reliable and improved scientific basis for management and decision making in oceanic and coastal fisheries. The project will provide the P-ACP countries with the means to develop efficient management measures, the skills to monitor their effectiveness, and some important tools to combat IUU fishing. A ‘demand-driven’ approach to implementation will ensure that assistance is provided to those countries which are most likely to take up management advice.

For **oceanic** fisheries, progress towards the overall objective of the conservation and sustainable use of resources during 2012 included:

- Agreement on a new management measure for tropical tunas in the WCPFC which is intended to reduce purse seine fishing on FADs and cap tuna longline fishing effort;
- Agreement by the PNA to enforce limits on the number of fishing days by purse seine vessels more rigorously;
- The certification by the Marine Stewardship Council of a large part of the purse seine fishery for Skipjack tuna and the Fiji longline fishery for Albacore as ‘sustainable fisheries’;
- The discards of small tuna by purse seine vessels fell to 1.3% of total catch, nearly reaching the 1% target set in the project documents;
- Agreement between PACP states and distant water fishing nations to move towards a system of reference points and harvest control rules to improve future management of the fisheries.

Progress towards achieving the project purpose (a reliable and improved scientific basis for management and decision making) in 2012 included the following in oceanic fisheries:

- Tuna statistical and data systems continued to perform well, with all except one P-ACP country submitting operational catch and effort data to the WCPFC by the due date in 2012 (the exception, Solomon Islands, still provided data but two months late). Most distant water fishing nations continue to fail to provide this data.
- A tuna stock assessment for Albacore was accepted by the WCPFC, and the peer review of the 2011 Bigeye tuna assessment was completed. The latter, while making a number of recommendations for improvement, concluded that the assessment ‘is based on state of the art methods and is analytically very thorough’. Note that while performance of the stock assessments is not part of the SciCOFish project (the work is funded by the WCPFC) they represent the final outcome of much of the research and analysis supported by the project and their quality is thus a good measure of project success.

For **coastal** fisheries, good progress was made towards the overall project objective in regard to monitoring and sustainable management of sea cucumber fisheries, and a change in focus on survey methodologies and biological data sampling for finfish has allowed good progress to be made in this area. Capacity building in Samoa, Fiji, Palau, Pohnpei (FSM) and Cook Islands on sea cucumber monitoring methodologies during the reporting period has provided local counterparts with the skills and experience to undertake the monitoring of sea cucumber resources themselves, with this work undertaken in different parts of their respective country and is still ongoing. Early in 2012 a market and creel survey manual was drafted, with trials undertaken in Tonga, Nauru, Pohnpei (FSM) and Fiji during the rest of the year. Capacity was developed at each location with 5–10 local staff training in the survey methodologies during the initial survey, with the trained people now having the skills to continue the surveys in other locations around their respective countries.

Good progress has also been made against the project purpose in three main areas. Firstly, for sea cucumber fisheries, the results from Solomon Islands and Vanuatu surveys in late 2011 has lead to the 2012 decision to continuation of the moratoria in these two countries for another three years. Initial results and advice from the capacity development and preliminary surveys in the countries indicate: Fiji should close their fishery and ban the use of underwater breathing apparatus; Pohnpei should keep the fishery closed until a full assessment is completed and an management plan developed; Cook Islands, Palau and Samoa, all have some species that would allows a small harvest to be undertaken under strict management control. These results will be further refined in 2013 when attachments from these countries come to Noumea and analyse the additional data they have collected in 2012. Secondly for finfish fisheries the introduction of creel surveys will allow fisheries dependent data to be collected at the point of landing through fisher interviews and sampling of the catch. In addition, some biological sampling on the fish species themselves will add to the scientific knowledge on which to base sound management. As this is a new activity, it will be 2013 when attachments will be brought in from these countries to do the initial analysis of the data for management purposes. Finally, the installation of mini servers in eight countries during 2012 has allowed fisheries departments to establish databases for all data collected in a central location that can be backed up to avoid data loss in the future.

This report summarizes the activities during the project's third year (January–December 2012). It has been prepared with the collaboration of Section heads from the SPC Fisheries, Aquaculture and Marine Ecosystems (FAME) Programme concerned with the SciCOFish project and focuses on the achievements of 2012 activities and progress towards stated objectives:

- Result 1: P-ACP governments, the FFA and the WCPFC are provided with scientific data, modelling, and advice to underpin their management decision making and strategic positioning.
- Result 2: P-ACP governments, private sector and communities are equipped to monitor coastal fisheries to provide scientific advice in support of sustainable management of these resources P-ACP governments, private sector and communities will be provided with technical methods and training to monitor coastal fisheries, scientific advice to inform management decisions, and development of in-country capacity to evaluate their effectiveness.

## 1. EXECUTIVE SUMMARY

### 1.1. Human resources

In 2012, the Fisheries scientist in charge of national scientific support moved to another position at SPC so a new person was recruited. The position was vacant for 5 month but the work assumed by a consultant.

SciCOFish component	SPC Section	Title	Name	Began
1: Oceanic Fisheries and assessment	Stock assessment and modeling	1 Fisheries Information Technology Officer	Fabrice Bouyé	1/06/2011
		2 Fisheries Scientist (bioeconomic modeling)	Aaron Berger	18/10/11
		3 Fisheries Economist (bioeconomic modeling) based at FFA	Roseti Imo	01/07/2011
		4 Fisheries Scientist (national scientific support)	Tim Adams	1/08/2012
	Data management	5 Fisheries Scientist (ecosystem modeling)	Jesus Jurado Molina	06/02/2011
		6 Fisheries Data Audit Officer	Bruno Deprez	02/12/2010
		7 Observer Support and Development Coordinator	Peter Sharples	01/01/2011
		8 Observer Training and Support Officer (North Pacific)	Manasseh Avicks	13/09/2010
	Fisheries monitoring	9 Observer Training and Support Officer	Siosifa Fukofuka	01/07/2011
		10 Reef Fisheries Information Manager	Franck Magron	16/08/2010
		11 Fisheries Scientist (finfish)	Being Yeeting	1/07/2010
		12 Fisheries Scientist (invertebrates)	Kalo Pakoa	27/08/2010
2: Coastal Fisheries	Science and management	13 Project administration and communications officer	Anne Lefevre	01/09/2010
3: Coordination	FAME			

## **1.2. Difficulties and changes**

- ✓ The schedule for training and other technical support for sub-regional and national observer programmes that was established early in 2012 fully utilised all manpower resources, including the three staff recruited in 2011 and funded by the New Zealand Aid Programme. However, the resources were stretched even further due to additional requests for unscheduled observer and debriefer training in Fiji and Kiribati.
- ✓ In early 2012 the Fisheries Scientist (national scientific support) resigned and the position was vacant for five months. A consultant was engaged to ensure that all of the national-level technical work was undertaken, but we were not able to undertake all the capacity building work (e.g. attachments) that we had planned and this has been deferred to 2013.
- ✓ While SPC worked closely with other regional agencies (e.g. FFA) and industry stakeholder groups (International Seafood Sustainability Foundation - ISSF) to ensure the wide dissemination of our economic data collection form for purse seine fisheries, the response was extremely poor. In 2013 we will take a two-pronged approach to address this issue with 1) a trip to meet with the key ISSF officials to determine ways to improve the response rate; and 2) work on a smaller scale project with purse seine operators in the Solomon Islands who have shown interest in these types of analyses.
- ✓ The WCPFC has reduced the frequency of the main tuna stock assessments and has replaced some of these assessments with work on important billfish (southwest Pacific Ocean striped marlin and swordfish) and shark (oceanic whitetip and silky sharks). We are still using existing tuna assessments in the evaluation of management options to support the WCPFC's consideration of conservation and management measures.
- ✓ The internet is potentially a powerful tool to respond to the requirements of member countries and future initiatives in data management are now being focussed in this area although the connectivity is not always acceptable.
- ✓ Similar to 2011, there is an increasing demand for assistance with sea cucumber fisheries, monitoring and management and countries have had to wait for project staff to be free to undertake the capacity development and/or management advice.
- ✓ With the lack of requests for finfish UVC (underwater visual census) surveys the project has changed focus to creel surveys in 2012 with a manual drafted and trialled in four countries, with good success that has generated more interest from other countries.
- ✓ Biological sampling protocols have also been added to the data collection activities for coastal finfish species with growing interest within countries for assistance and training.

- ✓ Some of the countries where capacity development has taken place, especially for sea cucumber surveys, the countries themselves are lacking the resources, human and financial, to carry on the work, or have to plan this into future budgets which has hindered the progression from training to ongoing data collection and then analysis for management advice.
- ✓ With the development of the market and creel survey manual as a high priority, other manuals have not progressed as well as planned. In fact, the finfish UVC manual will be reassessed in early 2013 as to whether this is really needed given the lack of interest at the country level.
- ✓ In 2013 the coastal component will lose its first staff person mid-year due to limited funding being left for the project. This will greatly affect delivery of the project in the finfish area during the final stages of the project.



Biological sampling during subregional observers training, Suva, Fiji, May-June 2012  
 (image: Siosifa Fukofuka, SPC observer training and support Officer)

### **1.3. Main achievements**

#### *Observer training and systems*

- ✓ Seven observer trainers and 90 debriefers received training, and 139 observers from the Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu, were trained at 14 observer training courses. Training materials — including a video on long lining and

technical guide for purse seine — were developed, and sampling material was provided for the sub-regional and national observer programmes.



Trainees, longline observer training course, Tarawa, Kiribati, November 2012  
(image: Siosifa Fukofuka, SPC observer training and support Officer)

#### *Integrated tuna fisheries databases*

- ✓ Tuna database (TUFMAN) audits were conducted in five countries during Cook Islands, Marshall Islands, Palau, Solomon Islands and Vanuatu to identify issues with coverage and quality of fisheries data and to reinforce the regional and national capacity to assess data quality.
- ✓ Refinement of various data auditing tools, including a new web-based version of the VMS-logsheet reconciliation system which will allow countries to identify and resolve data gaps and assist scientists to have a better understanding of the coverage of the data they use.
- ✓ The data coverage component of remote data audits are now covered though the web-based version of the VMS-logsheet reconciliation tool which has been demonstrated to member countries in 2012 and will be deployed in early 2013.
- ✓ Capacity building through three regional and one national tuna data workshops.
- ✓ Commence work on electronic reporting initiatives which will improve the quality of data by removing a step in the data entry process.
- ✓ Commence work on an enhanced regional data registry system which will provide better data organization and tracking.

#### *Bioeconomic modelling and national advice*

- ✓ Regional stock assessments were completed for south Pacific albacore, southwest Pacific striped marlin, oceanic whitetip shark, and silky sharks (note that this work was supported by WCPFC funding). All four assessments indicated concerns over stock status in terms of either

biological or socio-economic dimensions. The stock assessments undertaken for the tropical tunas in 2011 were used to evaluate the potential impacts of alternative management options for the fishery. This work supported the adoption by WCPFC of a new one year conservation and management measure that should reduce overfishing of bigeye tuna. Further work will be required over through 2013 to support the establishment of a longer and strengthened measure that addresses concerns over bigeye tuna as well as ensuring that there is no further decline in the status of yellowfin and skipjack tuna stocks.

- ✓ The shift away from infrequent National Tuna Fisheries Status Reports (NTFSRs) to a dual approach of dissemination of key national fishery information through country-specific web pages and country-specific advice on critical issues though Issue Specific National Reports (ISNRs) has been a success. It has improved our ability to respond to both the regular request for information and immediate needs for technical advice to support fisheries management needs. A second set of ISNRs was completed in 2013 (see below) and country-specific reports on three other issues (i.e., interactions between industrial and artisanal fishing, potential impacts of catch retention in industrial purse seine fisheries on food security, and characterization of within-EEZ longline fisheries and implications for sub-regional management arrangements) initiated for completion in 2013.
- ✓ Bioeconomic analyses of the potential impact of restrictions of the use of Fish Aggregating Devices (FADs) were summarised in country-specific reports for seven countries were undertaken during the third quarter of 2012 and then updated (at the request of countries) in the fourth quarter. These directly influenced the consideration of FAD management at both the national and regional level.
- ✓ A bioeconomic model of the Fiji longline fishery was developed through Government and Industry collaboration and supported the Fiji Governments consideration of vessel licence numbers for their fishery.
- ✓ Country visits were made to Fiji, Federated States of Micronesia, Nauru, Niue, and Samoa, to provide technical advice on areas such as setting national catch limits, to help determine national positions to take forward for sub-regional and regional negotiations. These trips also provided opportunities for small capacity building workshops to improve the understanding of the regional stock assessments.
- ✓ Collection of economic data from longline fleets in Samoa and Fiji, and development of a survey questionnaire for purse seine vessels.

#### *Ecosystem modelling of management and climate change*

- ✓ The results of the regional analyses on the impacts of climate change for skipjack tuna have been revised and published in scientific journal “Climatic Change” (Lehodey et al. 2012. DOI 10.1007/s10584-012-0595-y). The regional analyses for the south pacific stock of albacore

tuna has been completed and will be presented to the 2013 meeting of CLIOTOP. National and regional reports on vulnerability of tuna to climate variability including climate change have been completed. Critiquing of the requirements for ongoing monitoring of climate impacts on oceanic fisheries has been completed and published (Nicol et al. 2012. Climatic Change, DOI 10.1007/s10584-012-0598-y). Analyses examining the implications for economic development and food security from climate change on oceanic fisheries have also been completed and published (Bell et al. 2012. Climatic Change, DOI 10.1007/s10584-012-0606-2).

*Validate key model parameters through tagging*

- ✓ The tuna tagging activities in the central Pacific Ocean resulted in over 6,014 bigeye tuna being tagged including the release of over 18 with electronic archival data collection tags. The total number of tagged tuna in the WCPO is now in excess of 366,000 and is the most extensive tuna tagging dataset available for stock assessment. The rate of tag recoveries currently exceeds 16% of releases. Recent analyses examining FAD use in the WCPO has been published (Leroy et al. 2012. Aquatic Living Resources, DOI: 10.1051/alr/2012033).

*Conduct stakeholder consultation*

- ✓ Stakeholder consultations have been at the country level in 2012 for specific countries only, as most have had the priorities set in previous years and there is only one country left for 2014. Current priorities were also reconfirmed at the SciCOFish steering committee meeting in early 2012 and this too allowed adjustments to the work plan for 2012.

*Develop local capacity to implement field monitoring protocols*



Measures of sea cucumbers, Samoa, May 2012  
(image: Kalo Pakoa, SPC Fisheries scientist – invertebrates)

- ✓ Capacity development in sea cucumber survey methodologies has continued in Cook Islands (8 staff), Samoa (7 staff), Palau (11 staff), Pohnpei, FSM (6 staff) and Fiji (13 staff) with two attachments from each of Solomon Islands and Vanuatu and one from Samoa undertaking data entry, analysis and interpretation of the analysis into management advice.

- ✓ Capacity development in creel survey methodologies was commenced in Nauru (5 staff), Tonga (6 staff), Pohnpei, FSM (10) and Fiji (6 staff) and biological sampling of finfish in Pohnpei FSM (10 staff), Kiribati (6 staff), Marshall Islands (5 staff) with two staff from Nauru brought to Noumea on attachment for initial training on aging fish (collection of otoliths and reading growth rings).



Collecting biological data from roadside fish vendors, Tarawa, Kiribati, May 2012  
(image: Being Yeeting, SPC Fisheries scientist – finfish)

#### *Develop and implement secondary data collection protocols*

- ✓ Database has been drafted for entering and analysing data collected through both market and creel surveys. Export data base being expanded to collect catch data as well as exports for aquarium fish.
- ✓ In support of the data collection, mini-servers are being set-up in country for storage of coastal fisheries date which will allow long-term storage in a centralised location. Initial work has also been undertaken in Timor-Leste for assisting them with data needs.



Training on database fundamentals for coastal fisheries, Noumea, New Caledonia, March 2012  
(image: Jipé Lebars, SPC graphist artist)

#### *Develop management advice*

- ✓ At the end of each in-country training for sea cucumbers, an initial assessment is made of the areas surveyed so as to provide feedback to the host government. In the case of Solomons and

Vanuatu after the full analysis in early 2012, both countries retained the moratorium in place for another three years. In the case on Fiji, the initial data indicated the fishery should be closed, however, further survey work is continuing and a more in-depth assessment will be made in 2014.

- ✓ The initial 16 information sheets for fisheries management for communities were very well received in 2011, so to complement this a further 7 information sheets and on brochure on community-managed no-take areas in fisheries management were produced in association with the locally-managed marine area (LMMA) network. These sheets have also been translated into Portuguese and distributed to Timor-Leste. In addition, a poster on trochus was produced to encourage better management of this commercial invertebrate species.

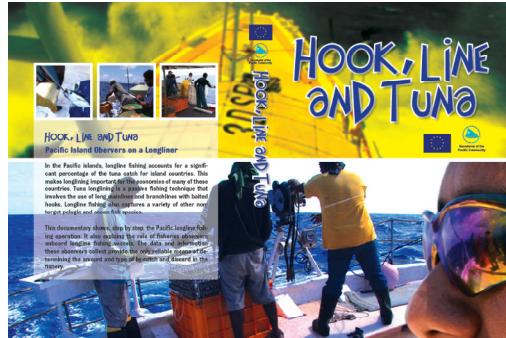


Ceremony of delivery of the “Guide & Information sheets for fishing communities - Guide to information sheets on fisheries management for communities”, Dili, Timor Leste, August 2012  
 (image: European Union delegation in Timor Leste)

#### *Project coordination and dissemination of results*

- ✓ Project Steering Committee was held 9 June 2012 to give an overview of the SciCOFish Project and its expected results, to advise members on the 2011 activities and to receive guidance from countries to identify the priorities for 2012 (year 3 of the project) work programme.

- ✓ Continuation of work on gender equality, specifically promoting observer job for men and women and introducing gender equality in trainings tools and code of conduct. A promoting brochure will be published in 2013.
- ✓ Production and distribution of the video “Hook, line and tuna” showing Pacific Island Observers on a longliner. As the “Deep blue” video produced in 2011, it will be used as a training tool for observers and also as a promotional tool, to be projected on national TV, to promote the recruitment of new observers.



## 2. REVIEW OF PROGRESS AND PERFORMANCE

The following description of activities presents the global progress towards SciCOFish overall objective and project purpose, and also the activities planned for year 3 with progress assessed against the work plan (January to December 2012).

### 2.1. Description of activities

Performance and success indicators Target 2014	Planned activities for 2012	Progress /issues	Action required for 2013
<b>Overall objective:</b> conservation and sustainable use of coastal and oceanic fisheries resources in the Pacific Islands region	<ul style="list-style-type: none"> <li>Effort on yellowfin and bigeye tuna reduced to at least the level required to reach Fmsy (the fishing mortality associate with the maximum sustainable yield) or lower, for both species</li> <li>Tuna discards by purse seiners reduced to less than 1% of catch (&lt;12,000 t) confirmed by 100% observer coverage</li> <li>At least some management measures adopted in each of 5 coastal areas with measurable signs of recovery observed in baseline</li> </ul>	<ul style="list-style-type: none"> <li>While no new assessments were undertaken for bigeye and yellowfin tuna in 2012, there were some concerning fishery developments. Purse seine effort continues to increase – especially in the waters of SPC members, and longline effort is increasing through the entry of new vessels (mostly targeting albacore at this stage). A new conservation and management measure. The new assessment for south Pacific albacore indicated that catches are close to the MSY level and projections indicated that these higher catches could have negative impacts on domestic longline fisheries that are dependent on albacore tuna. The Pacific Island countries and Territories were unable to agree on a proposal for improved management of south pacific albacore to bring to WCPFC in 2012.</li> </ul>	<ul style="list-style-type: none"> <li>There are two key work areas for 2013: a) Continue to improve the stock assessments for the main tuna stocks which are scheduled for 2014-15; and b) work closely with SPC and WCPFC members to provide technical support for the development of new management measures. This will include evaluation of management options and incorporating economic performance measures into the suite of results produced.</li> </ul>

Performance and success indicators Target 2014	Planned activities for 2012	Progress /issues	Action required for 2013
monitoring (indicators to be established under this project)		<ul style="list-style-type: none"> <li>• Monitoring has commenced for sea cucumbers in Cook Islands, Palau, Samoa and Fiji and it is expected that sufficient data will be collected by early 2014 to allow an assessment to be undertaken and appropriate management arrangements to be developed.</li> <li>• Data collection and monitoring has commenced in Tonga, Nauru, Pohnpei FSM and Fiji for finfish through a creel survey, interviewing fishers at the port when they return from fishing. In early 2014 the first of this data will be analysed for management purposes.</li> </ul>	
		<p><b>Project purpose:</b> to provide a reliable and improved scientific basis for management advice and decision making in oceanic and coastal fisheries</p> <ul style="list-style-type: none"> <li>• 100% of project stock assessment results for 4 main tuna species accepted by WCPFC Scientific Committee and forwarded to full Commission for decision-making</li> <li>• Observer coverage rates reach regionally-agreed levels by 2012 (100% for purse seine vessels) with no decrease in data quality</li> <li>• At least 5 P-ACP countries adopt coastal fisheries</li> </ul>	<ul style="list-style-type: none"> <li>• At the request of WCPFC, regional stock assessments were completed for south Pacific albacore, southwest Pacific striped marlin, oceanic whitetip shark, and silky sharks. The first three were accepted by WCPFC, while further work was requested on silky sharks and this has been completed and will be presented in 2013. Work commenced on an assessment for southwest Pacific swordfish and this will be completed in 2013.</li> <li>• Management advice for Solomons and Vanuatu accepted by governments and each country has retained their moratorium for another 3 years.</li> <li>• The sea cucumber management plan for the Marshall Islands has finally passed through</li> </ul>

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
management measures in line with project recommendations		<p>all process and has become law.</p> <ul style="list-style-type: none"> <li>Management advice and recommendations will be provided to Cooks, Palau, Samoa and Fiji once sufficient data has been collected in-country ready for analysis.</li> </ul>	



Collecting data from fishermen when they land their catch during a creel survey, Nauru, June 2012  
(image: Being Yeeting, SPC Fisheries scientist – finfish)

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
<p><b>Result 1:</b> P-ACP governments, the FFA and the WCPFC are provided with scientific data, modeling, and advice to underpin their management decision making and strategic positioning</p> <p><b>1.1. Observer training</b></p> <ul style="list-style-type: none"> <li>• Continuation of observer training for all P-ACP countries.           <ul style="list-style-type: none"> <li>• Fourteen observer courses in Cook Islands (Jan), PNG (Mar-Apr), FSM (Apr), Fiji (May-Jun), Solomons (Jun), Solomons (Jul), Vanuatu (Jul-Aug), PNG (Jul), Fiji (Sep-Oct), Marshalls (Sep-Oct), Kiribati (Oct-Nov), PNG (Nov), Kiribati (Nov), Vanuatu (Nov-Dec). A total of 198 observers were trained from the countries listed above and from Cook Islands, Nauru, Palau, Tokelau, Tonga and Tuvalu.</li> <li>• Continuation of trainers' training, from FSM, Kiribati, Marshalls, PNG and Solomons. An observer trainers workshop was held in Noumea in August; eight trainers and trainee trainers from these countries attended.</li> <li>• Six debriefer workshops in PNG (Jan), PNG (Mar), Noumea (May), Solomons (Jun), Kiribati (Oct), PNG (Nov); 90 debriefers were trained from Cook Islands, Fiji, Kiribati, Marshalls, Nauru, PNG, Solomons, Tonga, Tuvalu and Vanuatu.</li> <li>• ROCW in Tonga, Feb 13-17.</li> </ul> </li> <li>• Continuation of debriefers' training.           <ul style="list-style-type: none"> <li>• Organisation of 2012 Regional Observer Coordinators' Workshop.</li> <li>• Production of training tools.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of observer training for all P-ACP countries.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of observers' training.</li> </ul>	<ul style="list-style-type: none"> <li>• Organisation of 2013 ROCW.</li> <li>• Production of training tools.</li> </ul>

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
	<p><b>1.2. Integrated tuna fisheries databases</b></p> <ul style="list-style-type: none"> <li>Continued enhancement and support of TUFMAN. Continued country visits to provide training in using TUFMAN.</li> <li>Continued development of data audit tools.</li> <li>National tuna fisheries databases operational in 15 P-ACPs</li> <li>Tuna data audits conducted for at least 10 P-ACPs</li> <li>14 P-ACP's report data to WCPFC as per their obligations</li> </ul>	<ul style="list-style-type: none"> <li>The national Tuna Fisheries Data Management System (TUFMAN) was updated to version 6.22 by the end of the year.</li> <li>Data audit tools developed including VMS-Logsheet coverage enhanced and well established.</li> <li>Initial work on data coverage though web-based version of the VMS-Logsheet reconciliation.</li> <li>Initial work on electronic reporting which improves data quality by removing a step in the data entry process.</li> <li>Five in-country audits conducted (Cook Islands, RMI, Palau, Solomon Islands, and Vanuatu).</li> <li>All but one of the P-ACPs submitted their 2011 data to the WCPFC before the 30th April 2012 deadline (see <a href="http://www.wcpfc.int/stat/prov">http://www.wcpfc.int/stat/prov</a>).</li> </ul>	<ul style="list-style-type: none"> <li>Development and implementation of new web-based data audit and electronic-reporting tools, as required.</li> <li>Continued enhancement and support of data audit tools associated with TUFMAN data, including country visits to provide training in using data audit tools.</li> <li>Four in-country data audits to be conducted.</li> <li>Continuation of support to P-ACPs with respect to WCPFC data reporting obligations.</li> </ul>
	<p><b>1.3. Bioeconomic modeling and national advice</b></p> <ul style="list-style-type: none"> <li>10 region-wide stock assessments (RWSA) for key tuna species, using the latest updated data, provided to decision-makers during 2010-2013</li> <li>1 regional and 10 national reports providing bioeconomic modelling advice</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of RWSA production for region-wide advice on tuna fishery.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of RWSA production for region-wide advice on tuna fishery.</li> <li>Development and presentation of bio-economic indicators in the evaluation of alternative management options for the main tuna fisheries.</li> <li>ISNRs completed on three topics: 1) interactions between industrial and</li> </ul>

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
	<p>national advice on particular issues, proposing options for tuna management planning, including economic aspects.</p> <ul style="list-style-type: none"> <li>• Dissemination of the economic data collection form and the timely gathering of this information for analysis.</li> <li>• Development of a database to enter the economic information gathered from purse seiners.</li> <li>• Capacity building at national level on stock assessment.</li> </ul>	<p>2012 and then updated in the fourth quarter. Three other ISNR reports were initiated for completion in late 2012/early 2013 and all include socio-economic considerations.</p> <ul style="list-style-type: none"> <li>• Economic data collection forms were disseminated through large industry stakeholder groups but yielded very poor responses.</li> <li>• Given the poor responses of the data collection form – no progress was made on a database.</li> <li>• Small capacity building workshops were held in four countries and also in association with regional meetings.</li> </ul>	<p>artisanal fishing, 2) potential impacts of catch retention in industrial purse seine fisheries on food security, and 3) characterization of within-EEZ longline fisheries and implications for sub-regional management arrangements. Our annual Heads of Fisheries meeting will provide guidance on the focus for future ISNRs.</p> <ul style="list-style-type: none"> <li>• A two-pronged approach to address the poor response to collecting economic data from the purse seine fishery 1) a trip to meet with the key ISSF officials to determine ways to improve the response rate; and 2) work on a smaller scale project with purse seine operators in the Solomon Islands who have shown interest in these types of analyses.</li> <li>• Re-commencement of the country attachments and the stock assessment training workshop (the latter is subject to finding funding), and increase ad-hoc workshops in conjunction with national visits.</li> </ul>
1 regional and 10 national reports (including Timor Leste) providing advice on tuna resource vulnerability to environmental variability including climate change			<h4>1.4. Ecosystem modeling of management and climate change</h4> <ul style="list-style-type: none"> <li>• Preparation of national reports on vulnerability of tuna to environmental variability including climate change.</li> <li>• Preparation of regional reports on vulnerability of tuna to environmental variability including climate change.</li> </ul> <ul style="list-style-type: none"> <li>• Reports drafted and waiting for comment from National and Regional counterparts.</li> <li>• No suitable optimisation of the SEAPODYM model has been obtained and reports will exclude information on this webpage.</li> <li>• Publication of reports on SPC webpage.</li> </ul>

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
	<ul style="list-style-type: none"> <li>Advice to ACP on particular fisheries management that they ask.</li> </ul>	<ul style="list-style-type: none"> <li>species.</li> </ul>	
5,000 tuna tagged of which 80% are bigeye <sup>1</sup>	<p><b>1.5. Validate key model parameters through tagging</b></p> <ul style="list-style-type: none"> <li>Incorporation of tagging data into analyses that inform sub-regional and ACP countries fisheries management.</li> <li>1 tuna tagging cruise in the Central Pacific.</li> </ul>	<ul style="list-style-type: none"> <li>Tagging data successfully incorporated into the SEAPODYM model.</li> <li>Eighth central Pacific tagging cruise completed.</li> </ul>	<ul style="list-style-type: none"> <li>Activity completed, no actions scheduled for 2013</li> </ul>



PIRFO Assessor's workshop, Noumea, New Caledonia, August 2012  
(image: Jipé Lebars, SPC graphist artist)

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<sup>1</sup> Suggested indicator: non provided in Contribution Agreement

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
<b>Result 2:</b> P-ACP governments, private sector and communities are equipped to monitor coastal fisheries to provide scientific advice in support of sustainable management of these resources. P-ACP governments, private sector and communities will be provided with technical methods and training to monitor coastal fisheries, scientific advice to inform management decisions, and development of in-country capacity to evaluate their effectiveness.	<p><b>Country specific needs prioritised for all P-ACPs</b></p> <ul style="list-style-type: none"> <li>Travel or correspond with at least 4 countries to identify or update management and monitoring needs and prioritise these.</li> <li>Incorporate management and monitoring priorities in at least 3 joint country strategy documents.</li> </ul> <p><b>2.1. Conduct stakeholder consultation</b></p> <ul style="list-style-type: none"> <li>Five countries have had management and monitoring needs assessed and prioritised with some implementation of activities to meet needs.</li> <li>No JCS documents reviewed or updated in 2012, however, discussions on priorities made in 4 countries.</li> </ul> <p><b>2.2. Develop local capacity to implement field monitoring protocols</b></p> <ul style="list-style-type: none"> <li>Undertake at least 2 national workshops/trainings on finfish UVC methodologies or spawning aggregation survey techniques.</li> <li>Undertake at least 3 national workshops/trainings on invertebrate survey methodologies.</li> <li>Finalise and publish a finfish UVC manual incorporating standards from workshop of experts.</li> <li>Finalise and publish an invertebrate survey methodology manual incorporating outcomes of workshop of experts.</li> <li>Develop draft survey manuals for market and/or creel surveys following the workshop of experts.</li> <li>Field test the new market and/or creel survey in 2 countries and assess the methodology and conduct capacity building.</li> </ul>	<ul style="list-style-type: none"> <li>Focus will be on Timor Leste to identify needs and prioritise these</li> <li>Reactivate this when new JCS documents are produced in at least 3 countries.</li> </ul> <ul style="list-style-type: none"> <li>UVIC training undertaken in FSM with biological sampling training in FSM, Marshall Islands, Kiribati and Nauru</li> <li>National workshops and training for invertebrates undertaken in Samoa, Fiji, Palau, FSM and Cook Islands.</li> <li>Activity deferred as there are limited requests for finfish UVC work in 2011 and 2012.</li> <li>Invertebrate survey methodology manual in a final draft stage for review before publishing in early 2013.</li> <li>Survey manual for market and creel surveys drafted and ready for review before publishing in early 2013.</li> <li>Successful trialling of the creel survey manual and methodologies undertaken in Nauru, FSM, Tonga and Fiji with local capacity developed in each country.</li> </ul>	<ul style="list-style-type: none"> <li>Continue activities in at least 2 countries for biological sampling methodologies</li> <li>Continue invertebrate training and capacity development in at least 3 countries</li> <li>Assess if there is the need for a finfish UVC manual to be produced.</li> <li>Have draft manual reviewed, finalised and published in early 2013.</li> <li>Have draft manual reviewed, finalised and published in early 2013.</li> <li>Change this activity to capacity development and training in market and creel survey methodologies in at least 2 countries.</li> </ul>

Performance and success indicators Target 2014	Planned activities for 2012	Progress /issues	Action required for 2013
<ul style="list-style-type: none"> <li>• Mentor and train at least 2 Pacific Island young professional working in the section in conducting different survey methodologies.</li> <li>• Undertake at least 1 ad hoc request by a country covering an urgent issue.</li> </ul>	<ul style="list-style-type: none"> <li>• Mentoring undertaken with 2 Pacific Islander young professionals with biological sampling, invertebrate surveys and some ciguatera assessments.</li> <li>• Training, sampling and sending samples for analysis in Honk Kong undertaken for Tuvalu after an increase in the number of ciguatera cases being reported.</li> </ul> <p><b>2.3. Develop and implement secondary data collection protocols</b></p> <ul style="list-style-type: none"> <li>• Regional database module for export data updated and finalised.</li> <li>• Export database module trialled in three countries with national databases established.</li> <li>• Database module for market and/or creel surveys developed and tested.</li> <li>• Integration of current coastal fisheries management and monitoring document database into the new SPC document management system.</li> <li>• Undertake at least two sub-regional workshops on basic database skills.</li> <li>• Install servers with software in at least 5 countries/fisheries</li> </ul> <p>Regional data repository maintained and national data provided for backup from at least 5 countries/fisheries</p>	<ul style="list-style-type: none"> <li>• Continue the mentoring programme with 2 new Pacific Islander young professionals</li> <li>• Continue to have flexibility to respond to ad hoc requests from the Pacific ACP countries.</li> </ul> <ul style="list-style-type: none"> <li>• Regional database module for export data completed.</li> <li>• National databases developed and established in Marshall Islands and Solomon Islands, with preliminary work in PNG.</li> <li>• Basic database developed awaiting feedback from in-country trials so this can be finalised in early 2013.</li> <li>• This process is on hold as the SPC document management system has not been completed, so integration cannot occur until the SPC system is operational.</li> <li>• Two sub-regional workshops undertaken with 17 people trained from 14 countries.</li> <li>• Installed micro servers and provided training in Palau, Kiribati, Fiji, Tuvalu, Marshall Islands, Samoa, Cook Islands and Timor Leste.</li> <li>• Database attachment training provided in Noumea for participants from Fiji and Samoa.</li> <li>• Export data provided from Marshall Islands</li> </ul>	<ul style="list-style-type: none"> <li>• Expand export database to include landing data.</li> <li>• Continue establishing national export databases in at least 2 countries.</li> <li>• Finalise the market and creel survey database for use at the national level.</li> <li>• Continue with this activity when the SPC document management system is complete and operational.</li> <li>• Activity completed and will be looking at short-term attachment training in databases in 2013.</li> <li>• Continue this activity and install the micro servers in at least 4 countries.</li> <li>• Continue activity and provide attachment training in Noumea for participants from at least 2 countries.</li> <li>• Repeat activity and covered under</li> </ul>

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
<ul style="list-style-type: none"> <li>National data from monitoring training and subsequent surveys provided from at least 3 countries.</li> <li>Expand the current on-line training programme to include the identification of another 2 species groups.</li> </ul>	<p>and Solomon Islands. Repeat activity.</p> <ul style="list-style-type: none"> <li>National monitoring data from invertebrate surveys provided from Samoa, Solomons and Kiribati.</li> <li>Activity delayed due to database development work that is a higher priority.</li> </ul> <p><b>2.4. Develop management advice</b></p> <ul style="list-style-type: none"> <li>Assessment of finfish monitoring and/or survey data undertaken for 2 countries and management advice provided.</li> <li>Assessment of invertebrate survey and/or monitoring data undertaken for 3 countries and management advice provided.</li> <li>Attachments from at least 3 countries undertake training and analysis of their data at SPC for developing management arrangements.</li> <li>Provide management advice for specific fisheries in at least 2 countries.</li> <li>Participate in regional and international meetings covering coastal fisheries monitoring and/or management.</li> </ul> <p>Assessments and management recommendations given for at least 5 major coastal fisheries</p>	<ul style="list-style-type: none"> <li>export data collection – remove.</li> <li>Continue activity with national data for monitoring training and surveys provided from at least 3 countries.</li> <li>Review activity in 2013 given other database priorities.</li> </ul> <ul style="list-style-type: none"> <li>Create survey data and training and biological sampling undertaken but no actual assessments undertaken – this activity deferred to 2013.</li> <li>Invertebrate management advice provided to the Marshall Islands, Kiribati and Fiji following initial training and assessment work in-country.</li> <li>Attachments from Vanuatu, Solomon Islands and Samoa trained in analysing their data and turning this into management advice.</li> <li>Management advice provided to the Marshall Islands on aquarium fishery and to Samoa and Kiribati on national coastal fisheries development and management policy.</li> <li>Several meetings attended including Heads of Fisheries meeting in Noumea and sea cucumber workshop in Fiji.</li> <li>7 new information sheets produced as well as a 4-page brochure on community-managed no-take areas in fisheries</li> </ul> <ul style="list-style-type: none"> <li>Continue attending meetings as required.</li> <li>Continue to produce information sheets and other useful educational or awareness raising materials.</li> </ul>	

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
		management, and a trochus poster.	



Harvesting market data in Tonga, August 2012  
(image: Being Yeeting, SPC Fisheries scientist – finfish)

Performance and success indicators Target 2014	Planned activities for 2012	Progress/issues	Action required for 2013
<b>3. Shared project activities</b>			
	<p><b>3.1. Cross-cutting issues</b></p> <ul style="list-style-type: none"> <li>SciCOFish contribution to environmental sustainability, gender equality, good governance and human rights<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>Consultancy done by gender specialist in collaboration with SPC Human development division, to propose training tools, code of conduct and promoting items for observer career, for both men and women.</li> <li>Environmental sustainability is a central thematic for all SciCOFish activities. In 2012 various monitoring trainings were organised, for example in Samoa, as a mean to reach both the fisheries sustainable management and adaptation to climate change.</li> <li>Good governance is applied, working in coordination between SPC, governments, communities, to develop management plans for marine resources.</li> </ul>	<ul style="list-style-type: none"> <li>Edition and printing of the Observer brochure to promote women's involvement in this career.</li> <li>Finalisation of Observers training tools and code of conduct introducing gender equality.</li> <li>Continuation of activities, contributing to environmental sustainability, gender equality, good governance and human rights.</li> <li>Continuation of activities, contributing to environmental sustainability, gender equality, good governance and human rights.</li> </ul>
SciCOFish project run efficiently in terms of time and resources <sup>1</sup>		<p><b>3.2. Coordination</b></p> <ul style="list-style-type: none"> <li>Held of second SciCOFish steering committee meeting.</li> <li>Implementation of activities in Timor Leste.</li> <li>Following-up the activities in terms of</li> </ul>	<ul style="list-style-type: none"> <li>Second SciCOFish steering committee held: validation of year 2 report and year 3 work plan.</li> <li>Translation and distribution of the "Guide and information sheets for fishing communities" and work on coastal data management initiated.</li> <li>Annual reporting on activities and finance, and planning done. Follow-up along the</li> </ul> <ul style="list-style-type: none"> <li>Held of third SciCOFish steering committee meeting.</li> <li>Following-up the activities in terms of finances and plan.</li> </ul>

<sup>1</sup> Suggested indicator: non provided in Contribution Agreement

Performance and success indicators	Planned activities for 2012 Target 2014	Planned activities for 2012 finances and plan.	Progress /issues year. <b>3.3. Dissemination of results</b>	Action required for 2013
			<ul style="list-style-type: none"> <li>• Communication on SciCoFish activities.</li> <li>• Project results presented to ACP as tools –for fisheries management and decision making- and adopted<sup>1</sup></li> <li>• Reinforcement of the communication skills of scientific staff.</li> <li>• Promotion of EU visibility</li> </ul>	<ul style="list-style-type: none"> <li>• Communication on SciCoFish activities and results.</li> <li>• 6 web articles, 7 articles in the SPC Fisheries Newsletter distributed to all member countries and partners, 15 articles published in various national newspapers or websites, on SciCOFish activities.</li> <li>• Production and distribution of the video “Hook, line and tuna” and the new information sheets of the Guide and information sheets for fishing communities”</li> <li>• No particular work done this year on the reinforcement of the communication skills of scientific staff.</li> <li>• EU funding mentioned on all materials (videos, training books, posters, guides...) published this year. EU funding visible for all regional trainings with banners, and promotional items distributed to countries.</li> <li>• Promotion of EU visibility.</li> </ul>

## 2.2. Resources and budget

The end of 2012 calendar year corresponds to the closure of the Year 2 budget for SciCOFish project at the end of December 2012, 100 % of the budget is spent. The expenses for year 3 are well engaged and we think we will be able to ask for next request for payment in the first quarter of 2013.  
Below are presented Year 2 and Year 3 budgets, as per the 17 December 2012.

ACTIVITIES	Year 2 Budget		Expenditure for Year 2		Balance of Year 2 budget remaining in EUROS	% of year 2 budget spent
	in XPF	in EUROS	in XPF	in EUROS		
A-Staff costs	161,694,454	1,355,000	168,975,689	1,416,016	-7,281,178	-61,016 104.49%
B-Travel and subsistence costs	31,026,242	260,000	30,280,309	253,749	745,944	6,251 106.55%
C-Training costs	30,429,584	255,000	29,529,227	247,455	900,367	7,545 95.83%
D-Equipment	7,159,902	60,000	7,098,606	59,486	61,299	514 99.14%
E-Consumables	5,966,585	50,000	6,090,752	51,041	-124,165	-1,041 101.83%
F-Sub-contract / consultancies	19,451,067	163,000	16,970,781	142,215	2,480,293	20,785 73.48%
G-Fieldwork costs	23,269,682	195,000	20,012,730	167,707	3,256,960	27,293 91.64%
H-Dissemination of results	9,844,865	82,500	9,841,394	82,471	3,475	29 90.96%
I-Eligible indirect costs	20,218,967	169,435	20,218,729	169,433	245	2 100.00%
<b>TOTAL</b>	<b>309,061,346</b>	<b>2,589,935</b>	<b>309,018,217</b>	<b>2,330,942</b>	<b>43,239</b>	<b>362</b> <b>100%</b>

ACTIVITIES	Year 3 Budget		Advance received for Year 3		Expenditure for Year 3		Balance of advance		% of initial advance spent	Balance of Year 3 budget remaining	% of budg. spent
	XPF	Euros	XPF	Euros	XPF	Euros	XPF	Euros			
A-Staff costs	161,694,511	1,355,000	145,525,060	1,219,500	90,114,654	755,161	55,410,406	464,339	33.97	71,579,857	599,839 48.58
B-Travel and subsistence costs	31,026,253	260,000	27,923,628	234,000	17,138,423	143,620	10,785,205	90,380	43.92	13,887,830	116,380 39.52
C-Training costs	30,429,594	255,000	27,386,635	229,500	19,406,641	162,628	7,979,994	66,872	68.75	11,022,953	92,372 61.87
D-Equipment	10,739,853	90,000	9,665,868	81,000	5,955,094	49,904	3,710,777	31,096	61.61	4,784,763	40,096 55.45
E-Consumables	4,176,610	35,000	3,758,949	31,500	1,698,257	14,231	2,060,693	17,269	39.50	2,478,354	20,769 35.55
F-Sub-contract consultancies	/ 16,467,774	138,000	14,820,997	124,200	6,704,646	56,185	8,116,356	68,015	6.16	9,763,134	81,815 5.55
G-Fieldwork costs	8,353,219	70,000	7,517,897	63,000	2,009,973	16,844	5,507,927	46,156	0.09	6,343,249	53,156 0.08
H-Dissemination of results	11,038,182	92,500	9,934,364	83,250	3,540,033	29,665	7,089,740	59,412	35.63	8,270,826	69,310 32.07
I-Eligible indirect costs	19,174,814	160,685	17,257,333	144,617	10,259,740	85,977	6,302,193	52,812	49.87	8,142,408	68,233 44.88
<b>TOTAL</b>	<b>293,100,810</b>	<b>2,456,185</b>	<b>263,790,729</b>	<b>2,210,567</b>	<b>156,827,461</b>	<b>1,314,215</b>	<b>106,963,291</b>	<b>896,352</b>	<b>49%</b>	<b>136,273,374</b>	<b>1,141,971 44%</b>

### 3. 2013 ANNUAL WORK PLAN

#### 3.1. Activities

Performance and success indicators Target 2014	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
<b>Overall objective:</b> conservation and sustainable use of coastal and oceanic fisheries resources in the Pacific Islands region			
<ul style="list-style-type: none"><li>• Effort on yellowfin and bigeye tuna reduced to at least the level required to reach Fmsy (the fishing mortality associate with the maximum sustainable yield) or lower, for both species</li><li>• Tuna discards by purse seiners reduced to less than 1% of catch (&lt;12,000 t) confirmed by 100% observer coverage</li><li>• At least some management measures adopted in each of 5 coastal areas with measurable signs of recovery observed in baseline monitoring (indicators to be established under this project)</li></ul>			

Performance and success indicators Target 2014	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
<b>Project purpose:</b> to provide a reliable and improved scientific basis for management advice and decision making in oceanic and coastal fisheries	<ul style="list-style-type: none"> <li>• 100% of project stock assessment results for 4 main tuna species accepted by WCPFC Scientific Committee and forwarded to full Commission for decision-making</li> <li>• Observer coverage rates reach regionally-agreed levels by 2012 (100% for purse seine vessels) with no decrease in data quality</li> <li>• At least 5 P-ACP countries adopt coastal fisheries management measures in line with project recommendations</li> </ul>		

Performance and success indicators	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
<b>Target 2014</b>			
<b>Result 1:</b> P-ACP governments, the FFA and the WCPFC are provided with scientific data, modeling, and advice to underpin their management decision making and strategic positioning			
	<p><b>1.1. Observer training</b></p> <ul style="list-style-type: none"> <li>Continuation of observer training for all P-ACP countries.</li> <li>Continuation of trainers' training.</li> <li>Continuation of debriefers' training.</li> <li>Organisation of 2013 ROCW.</li> <li>Production of training tools.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 150 observers trained at 10 observer courses.</li> <li>Eight observer trainers trained.</li> <li>Four debriefer workshops held.</li> <li>ROCW held.</li> <li>The purse-seine observer guide completed.</li> </ul>	<ul style="list-style-type: none"> <li>Quarter 1 to 4</li> <li>Quarter 1 to 4</li> <li>Quarter 1 to 4</li> <li>Quarter 1</li> <li>Quarter 4</li> </ul>
	<p><b>1.2. Integrated tuna fisheries databases</b></p> <ul style="list-style-type: none"> <li>Development and implementation of new web-based data audit and electronic-reporting tools, as required.</li> <li>Continued enhancement and support of data audit tools associated with TUFMAN data, including country visits to provide training in using data audit tools.</li> <li>Four in-country data audits to be conducted.</li> <li>Continuation of support to P-ACPs with respect to WCPFC data reporting obligations.</li> </ul>	<ul style="list-style-type: none"> <li>New web-based tools trialled in least four countries.</li> <li>At least 3 electronic-reporting trials conducted</li> <li>Enhanced data audit tools documented and made available to at least four countries.</li> <li>Four Trip and data quality reports.</li> <li>Support through the 7<sup>th</sup> Regional Tuna Data Workshop (April 2013)</li> </ul>	<ul style="list-style-type: none"> <li>Quarters 1 to 4</li> <li>Quarters 1 to 4</li> <li>Quarters 1 to 4</li> <li>Quarters 1 to 4</li> <li>• Quarter 2</li> </ul>

Performance and success indicators	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
Target 2014	<p><b>1.3. Bioeconomic modeling and national advice</b></p> <p>10 region-wide stock assessments for key tuna species, using the latest updated data, provided to decision-makers during 2010–2013</p> <p>1 regional and 10 national reports providing bioeconomic modelling advice</p>	<ul style="list-style-type: none"> <li>Continuation of RWSA production for region-wide advice on tuna fishery.</li> <li>Continuation of Issue Specific National Reports</li> </ul>	<ul style="list-style-type: none"> <li>Revised stock assessment for silky shark complete, plus assessments for southwest Pacific swordfish, south and north Pacific blue sharks.</li> <li>Complete 3 sets of ISNRs on 1) interactions between industrial and artisanal fishing, 2) potential impacts of catch retention in industrial purse seine fisheries on food security, and 3) characterization of within-EEZ longline fisheries and implications for sub-regional management arrangements.</li> <li>Our annual Heads of Fisheries meeting will provide guidance on the focus for future ISNRs</li> <li>Undertake consultations with ISSF and Solomon Islands industry to collect information to allow more detailed analyses of the purse seine fishery</li> <li>2 attachment trainings at SPC HQ.</li> </ul>
	<p><b>1.4. Ecosystem modeling of management and climate change</b></p> <p>1 regional and 10 national reports (including Timor Leste) providing advice on tuna resource vulnerability to environmental variability including climate change</p>	<p>Publication of reports on SPC webpage</p>	<p>1 regional and 10 national reports</p> <p>Quarter 1</p>

Performance and success indicators Target 2014	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
5,000 tuna tagged of which 80% are bigeye <sup>1</sup>	1.5. Validate key model parameters through tagging Activity completed	Activity completed	Activity completed

<sup>1</sup> Suggested indicator: non provided in Contribution Agreement

Performance and success indicators	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
<b>Target 2014</b>			
<b>Result 2:</b> P-ACP governments, private sector and communities are equipped to monitor coastal fisheries to provide scientific advice in support of sustainable management of these resources. : P-ACP governments, private sector and communities will be provided with technical methods and training to monitor coastal fisheries, scientific advice to inform management decisions and development of in-country capacity to evaluate their effectiveness.			
Country specific needs prioritised for all P-ACPs	<p>• Travel or correspond with last country to identify or update management and monitoring needs and prioritise these.</p> <p>• Incorporate management and monitoring priorities in at least 3 joint country strategy documents.</p>	<p>• Assess and prioritise management and monitoring needs for Timor Leste.</p> <p>• Three JCS documents incorporate management and monitoring priorities.</p>	<ul style="list-style-type: none"> <li>• Undertake in quarter 2</li> <li>• 1 country each in quarters 2, 3 and 4.</li> </ul>
Standard monitoring protocols implemented and sustained in at least 5 P-ACPs	<p><b>2.1. Conduct stakeholder consultation</b></p> <p>• Undertake at least 2 national workshops/trainings on finfish UVC methodologies, biological sampling methodologies or spawning aggregation survey techniques.</p> <p>• Undertake at least 3 national workshops/trainings on invertebrate survey methodologies.</p> <p>• Assess if there is a need for a finfish UVC manual and if the need exists, finalise and publish manual.</p> <p>• Review and publish an invertebrate survey methodology manual.</p> <p>• Review and publish manual for market and creel surveys.</p> <p>• Undertake at least 1 national workshop/training on market and/or creel survey methodologies.</p> <p>• Mentor and train at least 2 Pacific Island young professionals working in the section in conducting different survey</p>	<p><b>2.2. Develop local capacity to implement field monitoring protocols</b></p> <p>• A minimum of 12 country staff trained and competent in at least one form of finfish monitoring or biological sampling.</p> <p>• A minimum of 18 country staff trained and competent in conducting invertebrate surveys.</p> <p>• If need exists for finfish UVC manual, complete and publish manual.</p> <p>• Manual reviewed, finalised, published and distributed in the region.</p> <p>• Manual reviewed, finalised, published and distributed in the region.</p> <p>• A minimum or 6 country staff trained and competent in undertaking market and/or creel surveys.</p> <p>• Two young professionals with the skills and competency to conduct a range of survey types.</p>	<ul style="list-style-type: none"> <li>• 1 country in quarter 1 and the second in quarter 2.</li> <li>• 1 country each in quarters 1, 2 and 3.</li> <li>• Undertake in quarters 1 and 2.</li> <li>• Undertake in quarters 1 and 2.</li> <li>• Undertake in quarters 1 and 2.</li> <li>• Undertaken in quarter 2.</li> <li>• Ongoing process throughout the year.</li> </ul>

Performance and success indicators Target 2014	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
<ul style="list-style-type: none"> <li>Undertake at least 1 ad hoc request by a country covering an urgent issue.</li> </ul>	<ul style="list-style-type: none"> <li>At least 4 country staff trained and competent to conduct specific surveys as needed.</li> </ul>	<ul style="list-style-type: none"> <li>No specific timing due to this being reacting to an ad hoc request.</li> </ul>	
<p>Regional data repository maintained and national data provided for backup from at least 5 countries/fisheries</p>	<p><b>2.3. Develop and implement secondary data collection protocols</b></p> <ul style="list-style-type: none"> <li>Regional database for export data expanded to include landing data.</li> <li>National export databases established in at least 2 countries.</li> <li>Finalise the market and creel survey database and set up nationally in 2 countries.</li> <li>When SPC's document management system is operational, integrate current coastal fisheries management and monitoring document database into it.</li> <li>Undertake database training with staff from at least 2 countries through attachment training in Noumea.</li> <li>Install micro servers with software in at least 3 countries and provide initial in-country training.</li> <li>Attachment training provided in Noumea for staff from at least 2 countries in GIS use and operations.</li> <li>National data from monitoring training and subsequent surveys provided from at least 3 countries.</li> <li>Expand the current on-line training programme to include the identification of another 2 species groups.</li> </ul>	<ul style="list-style-type: none"> <li>Database expanded and operational.</li> <li>Two countries are using the national export database.</li> <li>Two countries are using the national market and creel survey database.</li> <li>Activity dependent on SPC system being completed and operationalised.</li> <li>At least 2 country staff with expanded database management skills</li> <li>Servers fully operational in at least 3 countries and at least 6 staff trained and using the servers.</li> <li>At least 2 country staff have expanded skills in GIS use and operations.</li> <li>National monitoring and survey data backed up at SPC for 3 countries.</li> <li>On-line training programme operational with two new species groups.</li> </ul>	<ul style="list-style-type: none"> <li>Undertaken in quarter 2.</li> <li>Undertaken in quarters 2 and 4.</li> <li>Undertaken over quarters 1 to 3.</li> <li>Undertaken when SPC system operational.</li> <li>Undertaken in quarters 2 and 4.</li> <li>1 country in each of quarters 1, 3 and 4.</li> <li>Undertaken in quarters 3 and 4.</li> <li>Undertaken in quarters 2, 3 and 4.</li> <li>Undertaken in quarters 3 and 4.</li> </ul>

Performance and success indicators	Activities 2013 Target 2014	Results to be delivered – quantity, quality and time	2013 activity schedule
<p><b>2.4. Develop management advice</b></p> <ul style="list-style-type: none"> <li>• Assessment of finfish monitoring, biological sampling and/or survey data undertaken for 2 countries and management advice provided.</li> <li>• Assessment of invertebrate survey and/or monitoring data undertaken for 3 countries and management advice provided.</li> <li>• Attachments from at least 3 countries undertake training and analysis of their own data at SPC for developing management arrangements.</li> <li>• Provide management advice for specific fisheries in at least 2 countries.</li> <li>• Assist the Melanesian Spearhead Group (MSG) develop a “roadmap” for management of inshore fisheries in these countries.</li> <li>• Participate in regional and international meetings covering coastal fisheries monitoring and/or management.</li> </ul> <p>Assessments and management recommendations given for at least 5 major coastal fisheries</p>	<ul style="list-style-type: none"> <li>• Management advice / recommendations for finfish fisheries in 2 countries provided.</li> <li>• Management advice / recommendations for invertebrate fisheries in 3 countries provided.</li> <li>• At least 6 national staff trained in data analysis and interpretation of data for management advice.</li> <li>• Specific fishery management plans and/or arrangements in place in 2 countries.</li> <li>• Roadmap developed covering the 4 MSG countries with management arrangements for at least one fishery implemented.</li> <li>• Regional and international meeting attended as needed.</li> <li>• At least 5 information sheets and 2 other awareness and/or educational materials produced.</li> </ul>	<ul style="list-style-type: none"> <li>• 1 country in each of quarters 1 and 2.</li> <li>• 1 country in each of quarters 2, 3 and 4.</li> <li>• Attachments from 1 country each in quarters 1, 2 and 3.</li> <li>• No schedule as this is usually based on ad hoc requests.</li> <li>• Ongoing process through the year.</li> <li>• As needed during the year.</li> <li>• Scheduled for publication and distribution in quarters 1 and 3.</li> </ul>	

Performance and success indicators Target 2014	Activities 2013	Results to be delivered – quantity, quality and time	2013 activity schedule
<b>3. Shared project activities</b>			
		<b>3.1. Cross-cutting issues</b>	
SciCOFish contribution to environmental sustainability, gender equality, good governance and human rights <sup>1</sup>	<ul style="list-style-type: none"> <li>Edition and printing of the Observer brochure to promote women's involvement in this career.</li> <li>Finalisation of Observers training tools and code of conduct introducing gender equality.</li> <li>Continuation of activities, contributing to environmental sustainability, gender equality, good governance and human rights.</li> </ul>	<ul style="list-style-type: none"> <li>20000 observer brochures distributed in all P-ACP countries.</li> <li>Observer training tools and code of conduct ready to use</li> <li>Continued contributions all over the year.</li> </ul>	<ul style="list-style-type: none"> <li>• Quarter 1</li> <li>• Quarter 3</li> <li>• Continued activities all over the year.</li> </ul>
SciCOFish project run efficiently in terms of time and resources <sup>1</sup>	<ul style="list-style-type: none"> <li>Held of third SciCOFish steering committee meeting.</li> <li>Following-up the activities in terms of finances and plan.</li> </ul>	<ul style="list-style-type: none"> <li>Validation of overall direction and policy of the project.</li> <li>2013 project report and 2014 workplan.</li> </ul>	<ul style="list-style-type: none"> <li>• Quarter 1</li> <li>• Quarter 4</li> </ul>
Project results presented to ACP as tools –for fisheries management and decision making- and adopted <sup>1</sup>	<ul style="list-style-type: none"> <li>Communication on Scicofish activities and results</li> <li>Promotion of EU visibility.</li> </ul>	<ul style="list-style-type: none"> <li>10 articles on SciCOFish activities and results published on the SPC website and SPC fisheries newsletter, 2 press releases sent to the media.</li> <li>Distribution of promotional items for trainings, workshops and use of project equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Continued activities all over the year.</li> <li>• Continued activities all over the year.</li> </ul>

<sup>1</sup> Suggested indicator: non provided in Contribution Agreement

### 3.2. Finance

## SCICOFISH YEAR 4 FINANCIAL SUMMARY OF WORK PLAN

**For period 1 January 2013 to 31 December 2013**

ACTIVITIES	YEAR 4 BUDGET	
	in CFP	in EUROS
<b>A- Staff costs</b>	147,374,649	<b>1,235,000</b>
<b>B- Travel and subsistence costs</b>	27,446,291	<b>230,000</b>
<b>C- Training costs</b>	30,429,584	<b>255,000</b>
<b>D- Equipment</b>	5,369,926	<b>45,000</b>
<b>E- Consumables</b>	4,176,610	<b>35,000</b>
<b>F- Sub-contract / consultancies</b>	10,501,190	<b>88,000</b>
<b>G- Fieldwork costs</b>	8,353,219	<b>70,000</b>
<b>H- Dissemination of results, visibility</b>	11,038,182	<b>92,500</b>
<b>Total direct costs</b>	244,689,651	<b>2,050,500</b>
<b>I- Eligible indirect costs</b>	17,128,275	<b>143,535</b>
<b>TOTAL</b>	261,817,926	<b>2,194,035</b>