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ANNUAL REPORT 2009

YEAR 2

Implemented by: Secretariat of the Pacific Community (SPC)

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1. Introduction

SCIFISH comprises a programme of fishery monitoring and scientific research over a four-year period that will provide essential information for evaluating the status of stocks and the ecosystem, and for assessing the effectiveness of potential management options. In short, the outputs of this project will provide much of the scientific basis for future management decision making concerning tuna and related stocks in the WCPFC Convention Area. Given the current precarious status of two important stocks (yellowfin and bigeye tuna), long-term economic returns from the fishery may well rely on such management decisions, and the quality of scientific information underpinning them, taken over the next 5–10 years.

The overall objective is the conservation and sustainable use of oceanic fish resources of the western and central Pacific Ocean.

The expected results of the project, which will achieve the project purpose, are enhanced oceanic fishery monitoring in Pacific ACPs, and OCTs and in the Commission Convention Area generally; enhanced assessments of the status of oceanic fish stocks and the impacts of fishing upon them; and enhanced understanding of the pelagic ecosystem that supports oceanic fish stocks, including the ecosystem impacts of fishing.

This report summarizes the activities, achievements and progress towards stated objectives during the 2009 and specifies activities completed during the 4th six-month period of the project (1 July – 31 December 2009).

2. Project Progress

2.1 Results

Progress on achievement of project results, utilizing the objectively verifiable indicators (OVIs) as set out in the project logical framework matrix (Annex 1), are described in the following table.

Results/Verifiable indicators	**Activities**	**Verification**	ACP Indicator	OCT Indicator
1. Enhanced oceanic fisheries monitoring				
1.1 Improvement in the observer and port sampling coverage and quality of data to meet the required regional standards	Training programmes for scientific observers and port samplers - Observer/port sampling training workshops - Operational support for observer/port sampling programmes - Training attachments	National observer training courses January – June 2009 Courses FSM (Pohnpei)-cadet PNG-National / all gears Solomon Is-cadet (two courses) Kiribati-National refresher Kiribati-cadet (two courses) Vanuatu-cadet (two courses) July-December 2009 Courses PNG-National / all gears	see Duty Travel Reports Fukofuka (17/08/09) Sharples (11/02/10) Number of deployed observers has increased from 120 in 2008 to 400 in December 2009.	
		Sub-regional observer training courses July-December 2009 Courses Vanuatu - Vanuatu, Nauru, Tonga, Tuvalu Fiji - Fiji, Tuvalu and New Caledonia	July-December 2009 See Duty Travel Reports Fukofuka (17/08/09) Fukofuka (06/12/09) Number of deployed observers has increased from 120 in 2008 to 400 in December 2009.	
		Regional Observer Coordinator's Workshop The 9th Observer Coordinators Workshop and Observer Data management Workshop was held in Noumea from the 16th to 23rd September.	See http://www.spc.int/oceanfish/Html/Meetings/Index.htm for report.	
		Review/development of fishery monitoring support MOUs with ACPs MOUs finalized with FSM, Kiribati, Tuvalu, Vanuatu, Fiji, Tonga, Samoa,	See O:\Monitoring contracts and MOUs for documents	

		Cook Islands, Niue.		
		Provision of operational support as per MOUs. Funds were allocated and transferred as per MOUs.	Observer and data collection forms/equipment provided.	
		Fishery monitoring attachments to SPC	2 (Vanuatu and Cook Islands)	
		Observer and port sampling activities in New Caledonia and French Polynesia <u>French Polynesia</u> 3 observers trained in May 2009, and one former observer has been refreshed. One observer left in November 2009. In December 2009, 5 observers, 2 port sampler and 1 coordinator belong to SCIFISH Programme. Since commencement, 64 observer trips (51 in 2009) have been conducted on board domestic longliners (1042 days at sea and 763 sets observed). 807 port sampling operations have been conducted during fish unloading. <u>New Caledonia</u> 2 observers conducted 28 trips on 12 different domestic longliners (307 days at sea, 224 set and 423844 hooks observed). 169 port sampling operations have been conducted during fish unloading. A sampler has been replaced, totalling 2 in Noumea and 2 in Koumac now.		<u>French Polynesia</u> Sampling coverage was 75%. All observer data and port sampling data have been provided to SPC to be entered into the observer database. <u>New Caledonia</u> Observer trips represent coverage of 8.4% (Objective was 5%). Port Sampling coverage is 41% (Objective was 10%). Reports have been produced for each trip and given to fishers and ship owners. Data has been used to estimate shark catch (sold for fins) by the Caledonian fleet and estimate o non commercial species catch and rejections at sea.
	Provide quality control for scientific and port sampling data	Development of Competency-Based Observer Training (CBT) documentation Task completed and available online.	http://www.spc.int/oceanfish/Html/Statistics/Observer/PIRFO/index.htm	

		French version currently being translated and will be available online in 2010		
		Observer debriefing and debriefing training conducted No activities undertaken in 2009 however debriefing standards included in CBT and standards moderator manual.	http://www.spc.int/oceanfish/Html/Statistics/Observer/PIRFO/index.htm	
1.2 Improved regional coordination of national databases to track and monitor fisheries data for compliance with management requirements	Develop and trial new technologies for enhancing quality of data and timeliness of data collection	Progress with the development of TUFMAN and implementation in ACP countries TUFMAN version 5 completed. Development work on version 6.0 (MS SQL back-end) has begun. TUBS (observer management system) and Observer Trip Viewer System and CES updated.	All Countries issued with TUFMAN Version 5.0 with the exception of PNG and Samoa (who operate there own database) and Tokelau (deployment scheduled for 2010). .	
	Develop harmonized fisheries monitoring systems and data sharing protocols			
1.3 More comprehensive IUU compliance assessments undertaken	Undertake compliance audits and IUU risk assessments	Assessments undertaken for 8 ACPs	Resources have been provided to FFA as per SCIFISH contractual arrangements. Consultancies undertaken and reports will be available in the near future.	
1.4 Improved detection of IUU fishing through strengthening existing technologies and trial of new technologies	Develop and implement methodologies to verify fisheries data	Development of TUFMAN computer package to generate exception reports by comparing logsheet, VMS and unloading data The WCPFC Reporting module for TUFMAN, which specifically addresses the reporting obligations by ACP countries to the WCPFC completed. The Catch and Effort Query System (CES) and the latest logsheet data was provided	All Countries issued with TUFMAN Version 5.0 with the exception of PNG and Samoa (who operate there own database) and Tokelau (deployment scheduled for 2010).	

		to all member countries and FFA.		
	Develop and trial new technologies including satellite based technologies for detection of IUU fishing activities	Pilot study prepared and contracting completed.		Contract PRO 93/27/2 WP 11/8/1 between SPC and CLS signed on 16 April 2009
		Acquisition, interpretation of satellite images.		Three periods of acquisition of images interpreted and provided to French Navy in New Caledonia for ground check: - 11 to 15 March 2009 (New Caledonia) - 16 to 23 April 2009 (New Caledonia) - 6 to 11 May 2009 (Wallis et Futuna)
		Analysis of targets against VMS and other reports.		Periodic reports including an assessment of radar capacity for detection as well as vessel size, heading and speed
		Written report documenting pilot results		Final results in a 2-part report dated 15 July 2009, presented and discussed during a meeting with participants from New Caledonia and Wallis et Futuna fisheries departments + French Navy services (28 - 29 July 2009) Report also provided to French Polynesia
2. Enhanced stock assessment				
2.1 Tagging of tropical tunas using conventional and electronic archival tags	Conduct large scale conventional and electronic tagging and associated biological studies of tuna	January –June 2009 The second cruise (WP-2) was completed on 13 June 2009. Tuna were tagged in the EEZs of PNG, FSM, Marshall Islands, Kiribati/Gilberts, Tuvalu and Solomon. The total releases for WP-2 was 51,254	January –June 2009 See Leroy et al 2009 WCPFC-SC5 GN-IP See Schaefer 2009 WCPFC-SC5 GN-IP	

		tuna including 176 archival tags. Regional Tagging Cruise CP 2 completed. A total of 2699 tuna tagged on the TAO bouy along 155W and 140W longitude. A total of 90 tuna tagged with archival tags. July-December 2009 The third cruise (WP-3) was completed in mid-October. Tuna were tagged in the EEZs of PNG, Nauru, FSM, Indonesia and the high seas areas adjacent to these EEZs. WP-3 deployed 38,789 conventional tags and 70 archival tags. The third tagging cruise in the Central Pacific (CP3) was completed in November. This cruise, like earlier cruises, targeted primarily bigeye tuna aggregated beneath the TAO oceanographic buoys moored between 5^0N and 5^0S along 155^0W and 140^0W. During CP3, 5,105 conventional and 135 archival tags were deployed. This brings the total tag release numbers for the overall PTTP to 259,663 conventional and 886 archival tags.	July-December 2009 See cruise reports at http://www.spc.int/oceanfish/html/tag/rttp2/	
		Specific visits to promote and facilitate tag recovery have been undertaken in the Korea, Federated States of Micronesia, Solomon Islands, Palau, Marshall Islands, Indonesia, Philippines and Papua New Guinea, American Samoa, Japan, Indonesia, Philippines.	January –June 2009 see Duty Travel Reports January –June 2009 Kumasi (13/5/09) Nicol (29/5/09) Williams (2/6/09) July-December 2009 See Duty Travel Reports	

			Nicol (10/7/09) Nicol (3/8/09) Nicol 16/10/09) Kumasi (6/10/09)	
		The first albacore tagging cruise completed. Overall, a total of 2766 albacore were tagged and released with 1457 of these fish also receiving an injection of oxytetracycline (OTC) for the age validation experiments. Planning for second albacore cruise complete		Williams et al 2009 WCPFC-SC5 GN-IP
		Collection of otoliths & gonad from albacore proceeding. A total of 473 albacore sampled (177 French Polynesia, 226 New Caledonia, 70 New Zealand). Procedures for analysis and collaboration established with CSIRO in Australia		Farley et al 2009 WCPFC-SC5 BI-WP
		Standardized CPUE for distant–water fleets targeting south Pacific albacore		Bigelow et al 2009. WPPFC-SC5 SA-WP Briand et al 2010. Submitted manuscript to Fisheries Oceanography
2.2 Improved assessment on status of tuna stocks by developing more accurate stock assessment model	Conduct analyses of tagging, biological and fishery oceanographic data to better understand population dynamics, behaviour and biology of tuna	Biological parameters and spawning biomass calculations for yellowfin tuna in the WCPO have been adjusted	Hoyle et al 2009. WPPFC-SC5 BI-WP	
		Analysis of vertical movement	Leroy et al 2009. ICES proceeding	
		Summary of PTTP Phase 2 reviewed.	Leroy et al 2009. WCPFC-SC5 GN-IP.	

		Analysis of horizontal movement	Royer et al 2009. Preliminary report to SPC	
	Develop models to assess status of targeted tuna stocks and impacts of fishing	Preliminary stock models for south pacific albacore, yellowfin and bigeye drafted for 2009.	Langley et al 2009 WCPFC-SC5-SA-WP Harley et al 2009 WCPFC-SC5-SA-WP Hoyle & Davies 2009 WCPFC-SC5-SA-WP	
3. Enhanced understanding of the pelagic ecosystem				
3.1 Produce better management policies through further development and application of the Spatial Ecosystem and Population Dynamics Model (SEAPODYM)	Provide scientific advice on ecosystem aspects of fishery management including: i) impacts of environmental variability on oceanic fish stocks and fisheries ii) the effects of fishing on the pelagic ecosystem; and iii) potential benefits and effectiveness of specific ecosystem management measures such as marine protected areas	Applications of Seapodym to south pacific albacore, yellowfin and climate change forecasting	Lehodey et al 2009 WCPFC-SC5-EB-WP	Briand et al 2009 WCPFC-SC5-EB-WP
3.2 More accurate estimates and assessment of impacts of exploitation in EEZs.	Develop and enhance models of the pelagic ecosystem supporting targeted oceanic fish stocks	Application of SEAPODYM to South Pacific albacore in the New Caledonia EEZ.		Briand et al 2009 WCPFC-SC5-EB-WP

2.2 Project Purpose

Progress towards achieving the project purpose is summarized below.

Project Purpose	OVI	Evaluation against OVI
Improved policy and scientific information for better manage-ment of the regional and national oceanic fisheries	Improved management plans and policy frame-works through enhanced scientific and monitoring information for better management of the fishery	Scientific advice provided by SPC-OFP to the WCPFC resulted in the adoption of CMM-2008-01 in December 2008. This CMM provides the first comprehensive management measures for bigeye and yellowfin tuna to date in the WCPFC. The Parties to the Nauru Agreement (PNA) also implemented new measures as part of their 3rd Implementing Agreement, based in part on scientific advice from SPC-OFP. At the national level, the project is supporting the provision of scientific advice for the development of ecosystem-based tuna management plans. During 2009, advice was provided to Nauru, Samoa, Tuvalu, Niue and Marshall Islands.

2.3 Project Objective

The contribution of the project towards achievement of the overall objective is summarized below.

Overall Objective	OVI	Evaluation against OVI
Conservation and sustainable use of oceanic fish resources of the western and central Pacific	Improved regional/national treaties and agreements promoting sustainable harvest of the fishery	As noted for the project purpose, there have been demonstrable improvements in regional (WCPFC) and sub-regional (PNA) treaties and agreements towards securing sustainable exploitation of the region's oceanic fisheries. The total catch of main market species in 2009 was approximately 2.4 million tonnes, the same level as 2008. The major tuna species, skipjack, continues to be harvested sustainably, with a new assessment (utilizing much data provided through the project) due to be conducted in mid-2010. South Pacific albacore, a species of high importance to P-ACPs in the southern part of the region, is also being fished sustainably. More progress needs to be made in securing the sustainable harvest of bigeye tuna and yellowfin tuna in the core western equatorial area. Project data continue to be used to enhance assessments for these stocks.

3. Expenditure of Funds

3.1 ACP Component

Details of expenditure for Year 2 from 1 January to 31 December 2009 are provided in Annex 2. For the ACP component, Euros 1,233,017 was expended being 100.97% of the advance for Year 2. A request has been submitted for the balance of Year 2 2009 funds to ensure that cash flow is maintained in the period between the submission of the audit report for Year 2, and the submission for the advance for Year 3, 2010 funds.

3.2 OCT Component

For the OCT Component, expenditure for Year 2 for the period 1st January to 31st December 2009 was Euros 879,964 being 164.95% of the advance received or 91.95% of the total budget for Year 2. A request will now be submitted for the balance of Year 2 funds.

4. Challenges/Issues Encountered and solutions

The following challenges/issues have been encountered:

a. For the OCT component the late delivery of tags from suppliers has meant that for Year 2, 2009 only 55.76% of the total budget for tagging biological equipment was expended. However the balance of these funds will be required for payment of tags that were ordered in 2009 but will not be delivered until 2010 in Year 3. A request to access additional funds over and above the budget for Year 3, 2010 to cover the short fall of tags required to successfully undertake the second year of albacore tagging will be submitted to the RAO.

5. Report Prepared By:

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ANNEX 1: SCIFISH PROJECT LOGICAL FRAMEWORK MATRIX

INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTIONS
Overall Objective: Conservation and sustainable use of oceanic fish resources of the western and central Pacific	Improved regional/national treaties and agreements promoting sustainable harvest of the fishery.	- Treaties and Agreements. - National/Regional Sector Plans. - Regional and National reports and database.	World demand for tuna and related products of the Central and Western Pacific maintained at high levels.
Project Purpose: Improved policy and scientific information for better management of the regional and national oceanic fisheries.	Improved management plans and policy frameworks through enhanced scientific and monitoring information for better management of the fishery.	- Management Plans. - National and Regional reports. - Project reports. - Policy papers.	The tuna fishery remains a priority area for management and conservation by regional and national administrations.
Results: 1) Enhanced oceanic fisheries monitoring. 2) Enhanced stock assessments.	1.1 Improvement in the observer and port sampling coverage and quality of data to meet the required regional standards. 1.2 More comprehensive IUU compliance assessments undertaken. 1.3 Improved regional coordination of national databases to track and monitor fisheries data for compliance with management requirements. 1.4 Improve detection of IUU fishing through strengthening existing technologies and trial of new technologies. 2.1 Tagging of tropical tunas using conventional and electronic archival tags. 2.2 Improved assessment on status of	- Observer reports & training reports. - Regional and national databases. - MOUs signed. - IUU compliance audits. - FFA and SPC reports. - Evaluation reports. - Stock assessment data and reports. - Stock assessment models. - Tagging data. - WCPFC reports. - Publications. - Update SEAPODYM. - Project reports.	Appropriate and compatible technologies available to strengthen existing monitoring, control and surveillance infrastructure. Sufficient number of observers available for observer and port sampling missions. Commitment by governments to seriously address IUU fishing. ACO and OCT governments will commit to implementing fishery monitoring methods as recommended by the project. Availability of vessel to be chartered for tuna tagging exercise.

3) Enhanced understanding of the pelagic ecosystems.	tuna stocks by developing more accurate stock assessment models. 3.1 Produce better management policies through further development and application of the Spatial Ecosystem and Population Dynamics Model (SEAPODYM). 3.2 More accurate estimates and assessment of impact of exploitation in EEZs.		
Activities: 1.1 Training programmes for scientific observers & port samplers. 1.2 Provide quality control for scientific and port sampling data. 1.3 Develop and trial new technologies for enhancing quality of data and timeliness of data collection. 1.4 Develop harmonised fisheries monitoring systems and data sharing protocols. 1.5 Undertake compliance audits and IUU risk assessments. 1.6 Develop and implement methodologies to verify fisheries data. 1.7 Develop and trial new technologies including satellite based technologies for detection of IUU fishing activities. 2.1 Conduct large-scale conventional and electronic tagging and associated biological studies of tuna. 2.2 Conduct analyses of tagging, biological and fishery oceanographic	**Cost Estimate (Euro)** **ACP** **OCT** **Total** Technical Assistance 1,080,000 853,000 1,933,000 MCS Activities 480,000 100,000 580,000 Travel 150,000 112,000 262,000 Equipment 134,000 138,000 272,000 Tagging Operations 1,200,000 350,000 1,550,000 Training 90,000 24,000 114,000 Observer & Port Sampling 90,000 714,000 804,000 Data Processing and IT Support 330,000 60,000 390,000 Administration / Audit 129,000 42,000 171,000 Indirect Costs 257,000 157,000 414,000 Contingencies 27,000 30,000 57,000 Evaluation 33,000 30,000 63,000 **TOTAL** **4,000,000** **2,610,000** **6,610,000**		Availability of technical expertise for long and short term engagement. New technologies for surveillance and data management affordable. Commitment from the countries to trial new technologies. Status of tuna stocks at good levels to undertake scientific work covering targeted species.

data to better understand population dynamics, behaviour & biology of tuna. 2.3 Develop models to assess status of targeted tuna stocks and impacts of fishing. 3.1 Develop and enhance models of the pelagic ecosystem supporting targeted oceanic fish stocks. 3.2 Provide scientific advise on ecosystems aspects of fishery management including: i) impacts of environment variability on oceanic fish stocks and fisheries; ii) the effects of fishing on the pelagic ecosystem; and iii) potential benefits and effectiveness of specific ecosystem management measures such as marine protected areas.		

ANNEX 2: SCIFISH YEAR 2 - FINANCIAL SUMMARY OF EXPENDITURE BY ACTIVITIES

For period 01 January 2009 to 31 December 2009

ACTIVITIES	YEAR 2 BUDGET EUROS	T6 Code	Adavnce for Year 2 EUROS	Expenditure for Year 2 EUROS	Balance of advance EUROS	% of initial advance spent	Balance of Year 2 Budget remaining EUROS	% of year 2 Budget spent
ACP COMPONENT								
Technical Assistance								
1.1 Port sampling & observer coordination	**100,000**	SFA011	**78,835**	**104,399**	**(25,564)**	132.43%	**(4,399)**	104.40%
1.2 Port sampling & observer trainer	**85,000**	SFA012	**67,010**	**83,249**	**(16,239)**	124.23%	**1,751**	97.94%
1.3 Tagging Technician	**75,000**	SFA013	**59,126**	**66,735**	**(7,609)**	112.87%	**8,265**	88.98%
1.4 Ecosystem Modeller	**100,000**	SFA014	**78,835**	**83,977**	**(5,142)**	106.52%	**16,023**	83.98%
1.5 Ecosystem Modelling Services	**40,000**	SFA015	**31,534**	**50,011**	**(18,477)**	158.59%	**(10,011)**	125.03%
MCS Activities								
2.1 Harmonised MCS data sharing protocols	**30,000**	SFA021	**23,651**	**0**	**23,651**	0.00%	**30,000**	0.00%
2.2 Compliance audits, IUU risk assessments	**35,000**	SFA022	**27,592**	**0**	**27,592**	0.00%	**35,000**	0.00%
2.3 Data verification methodologies	**30,000**	SFA023	**23,651**	**0**	**23,651**	0.00%	**30,000**	0.00%
2.4 Satellite detection of IUU fishing pilot	**175,000**	SFA024	**137,961**	**0**	**137,961**	0.00%	**175,000**	0.00%
Travel								
3.1 Port Sampling & Observer	**20,000**	SFA031	**15,767**	**19,852**	**(4,085)**	125.91%	**148**	99.26%
3.2 Tagging	**18,000**	SFA032	**14,190**	**15,559**	**(1,369)**	109.65%	**2,441**	86.44%
3.3 Ecosystem Modelling	**8,000**	SFA033	**6,307**	**8,244**	**(1,937)**	130.72%	**(244)**	103.05%
Equipment								
4.1 Port Sampling & Observer	**10,000**	SFA041	**7,884**	**9,313**	**(1,429)**	118.12%	**687**	93.13%
4.2 Tagging / biological	**25,000**	SFA042	**19,709**	**24,542**	**(4,833)**	124.52%	**458**	98.17%
4.3 Computer	**10,000**	SFA043	**7,884**	**4,181**	**3,703**	53.03%	**5,819**	41.81%
Tagging operations								
5.1 Vessel charter / operations	**440,000**	SFA051	**346,874**	**438,411**	**(91,537)**	126.39%	**1,589**	99.64%
5.2 Tag rewards, publicity, etc	**35,000**	SFA052	**27,592**	**34,975**	**(7,383)**	126.76%	**25**	99.93%
Training								
6.1 Port Sampling & Observer	**20,000**	SFA061	**15,767**	**17,059**	**(1,292)**	108.19%	**2,941**	85.29%
6.2 Stock Assessment	**10,000**	SFA062	**7,884**	**9,879**	**(1,995)**	125.30%	**121**	98.79%
Observer & Port sampling operations								
7.1 National observer programmes	**20,000**	SFA071	**15,767**	**20,000**	**(4,233)**	126.85%	**(0)**	100.00%

7.2 National port sampling programmes	**10,000**	SFA072	**7,884**	**9,897**	**(2,013)**	125.53%	**103**	98.97%
Data Processing and IT support								
8.1 Scientific programming support	**85,000**	SFA081	**67,010**	**78,830**	**(11,820)**	117.64%	**6,170**	92.74%
8.2 Data processing support	**25,000**	SFA082	**19,709**	**24,601**	**(4,892)**	124.82%	**399**	98.40%
Administrative Support / Evaluation	**42,000**	SFA090	**33,111**	**48,657**	**(15,546)**	146.95%	**(6,657)**	115.85%
SPC Overhead @ 7% of Direct costs	**101,000**	SFA100	**79,623**	**80,644**	**(1,021)**	101.28%	**20,356**	79.85%
CONTINGENCIES	**10,000**	SFA110		**0**			**10,000**	0.00%
EVALUATION	**16,500**	SFA120		**0**			**16,500**	0.00%
SubTotal ACP Component	**1,575,500**		**1,221,157**	**1,233,017**	**-11,860**	**100.97%**	**342,483**	**78.26%**
PTOM COMPONENT								
Technical Assistance								
1.1 National Coordinator FP	**38,000**	SFO011	**21,634**	**42,891**	**(21,257)**	198.25%	**(4,891)**	112.87%
1.2 National Coordinator NC	**38,000**	SFO012	**21,634**	**41,859**	**(20,224)**	193.48%	**(3,859)**	110.15%
1.3 Albacore Biologist	**85,000**	SFO013	**48,393**	**89,734**	**(41,341)**	185.43%	**(4,734)**	105.57%
1.4 Fisheries Oceanographer	**90,000**	SFO014	**51,239**	**78,482**	**(27,243)**	153.17%	**11,518**	87.20%
1.5 Ecosystem Modelling Services	**50,000**	SFO015	**28,466**	**0**	**28,466**	0.00%	**50,000**	0.00%
MCS Activities (contracted work)			**0**					
2.1 Satellite detection of IUU fishing pilot (NC)	**40,000**	SFO021	**22,773**	**150,032**	**(127,259)**	658.81%	**(110,032)**	375.08%
Travel			**0**					
3.1 FP	**4,000**	SFO031	**2,277**	**222**	**2,055**	9.75%	**3,778**	5.55%
3.2 NC	**4,000**	SFO032	**2,277**	**0**	**2,277**	0.00%	**4,000**	0.00%
3.3 WF	**4,000**	SFO033	**2,277**	**1,459**	**818**	64.06%	**2,541**	36.47%
3.4 Regional	**12,000**	SFO034	**6,832**	**10,237**	**(3,405)**	149.84%	**1,763**	85.31%
3.5 Contractor travel	**20,000**	SFO035	**11,387**	**10,377**	**1,009**	91.14%	**9,623**	51.89%
Equipment			**0**					
4.1 Fishery monitoring FP	**3,000**	SFO041	**1,708**	**0**	**1,708**	0.00%	**3,000**	0.00%
4.2 Fishery monitoring NC	**3,000**	SFO042	**1,708**	**0**	**1,708**	0.00%	**3,000**	0.00%
4.3 Fishery monitoring WF	**1,000**	SFO043	**569**	**0**	**569**	0.00%	**1,000**	0.00%
4.4 Tagging / biological	**30,000**	SFO044	**17,080**	**16,729**	**351**	97.95%	**13,271**	55.76%
4.5 Computer	**0**	SFO045	**0**	**0**				
Tagging operations			**0**					
5.1 Vessel charter	**150,000**	SFO051	**85,399**	**136,863**	**(51,464)**	160.26%	**13,137**	91.24%
5.2 Tag rewards, publicity	**5,000**	SFO052	**2,847**	**2,905**	**(58)**	102.04%	**2,095**	58.09%

5.3 Contract personnel	**20,000**	SFO053	**11,387**	**12,108**	**(722)**	106.34%	**7,892**	60.54%
Training			**0**					
6.1 FP	**5,000**	SFO061	**2,847**	**530**	**2,317**	18.61%	**4,470**	10.59%
6.2 WF	**3,000**	SFO062	**1,708**	**0**	**1,708**	0.00%	**3,000**	0.00%
Observer & Port sampling operations			**0**					
7.1 FP Observers	**106,000**	SFO071	**60,349**	**87,653**	**(27,305)**	145.24%	**18,347**	82.69%
7.2 NC Observers	**35,000**	SFO072	**19,926**	**30,449**	**(10,523)**	152.81%	**4,551**	87.00%
7.3 WF Observers	**9,000**	SFO073	**5,124**	**644**	**4,480**	12.58%	**8,356**	7.16%
7.4 Port sampling FP	**44,000**	SFO074	**25,050**	**40,001**	**(14,951)**	159.68%	**3,999**	90.91%
7.5 Port sampling NC	**44,000**	SFO075	**25,050**	**30,214**	**(5,164)**	120.61%	**13,786**	68.67%
			0	**0**				
Data Processing and IT Support	**20,000**	SFO080	**11,387**	**19,977**	**(8,590)**	175.44%	**23**	99.88%
Administrative Support	**10,000**	SFO090	**5,693**	**14,446**	**(8,753)**	253.74%	**(4,446)**	144.46%
			0					
SPC Overhead @ 7% of Direct costs	**61,000**	SFO100	**34,729**	**57,469**	**(22,741)**	165.48%	**3,531**	94.21%
CONTINGENCIES	**10,000**	SFO110		**0**			**10,000**	
AUDIT	**3,000**	SFO120	**1,708**	**4,682**	**(2,974)**	274.13%	**(1,682)**	156.07%
EVALUATION	**10,000**	SFO130		**0**			**10,000**	0.00%
SubTotal PTOM Component	**957,000**		**533,459**	**879,964**	**-346,505**	**164.95%**	**67,036**	**91.95%**
TOTAL	**2,532,500**		**1,754,616**	**2,112,981**	**-358,364**	**120.42%**	**409,519**	83.43%

* Advance for year 2, does not include Year 1 Budget balance, amount 21.952.912 XPF