



## SCIENTIFIC COMMITTEE THIRD REGULAR SESSION

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### THE FISHERY RESOURCES MONITORING SYSTEM (FIRMS)

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WCPFC-SC3/GN WP-13

Paper prepared by the Secretariat

#### **Introduction**

1. The second regular session of the Scientific Committee, 7-18 August 2006 at Manila, Philippines received a brief overview of the Fishery Resources Monitoring System (FIRMS). The Secretariat's participation in the 22<sup>nd</sup> session of the Coordinating Working Party on Fishery Statistics (CWP), 26<sup>th</sup> February – 2 March, Rome, Italy (see WCPFC/SC3.....) provided an opportunity for the WCPFC Secretariat to observe the 4<sup>th</sup> session of the FIRMS Steering Committee (FSC4) which met during the same week.

#### **FIRMS**

2. A summary of the objectives and components of FIRMS is presented at Attachment A. The material for this was taken from the FIRMS website <http://firms.fao.org>.

#### **FSC4**

3. Representatives of the following organisations participated in FSC4:
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
  - Commission for the Conservation Southern Bluefin Tuna (CCSBT)
  - Statistical Office of the European Communities (Eurostat)
  - Food and Agriculture Organization of the United Nations (FAO)
  - General Fisheries Commission for the Mediterranean (GFCM)
  - Inter-American Tropical Tuna Commission (IATTC)
  - International Commission for the Conservation of Atlantic Tuna (ICCAT)
  - International Council for the Exploration of the Sea (ICES)
  - Northwest Atlantic Fisheries Organization (NAFO)
  - Northeast Atlantic Fisheries Commission (NEAFC)
  - South East Atlantic Fisheries Organisation (SEAFO)

- Southeast Asian Fisheries Development Center (SEAFDEC)
- Permanent Commission of the South Pacific (CPPS)
- Western and Central Pacific Fisheries Commission (WCPFC) which also represented the Secretariat of the Pacific Community (SPC).

4. Issues on the FSC4 agenda of interest to WCPFC included the development of inventories for marine resources (including enhancements to FIRMS software systems and web presentation), progress with reporting on status and trends in fisheries, stock status descriptors, and promoting global coverage for the FIRMS database (and concern over data gaps for the South China Sea).

5. The report of FSC4 is available at:

[ftp://ftp.fao.org/FI/DOCUMENT/FIGIS\\_FIRMS/2007/report.pdf](ftp://ftp.fao.org/FI/DOCUMENT/FIGIS_FIRMS/2007/report.pdf)

### **WCPFC and FIRMS: Advice**

6. The operationalization of FIRMS took several years. This led to some frustration among some existing, and potential, partners who considered that too much time was being spent on developing processes and protocols rather than meeting the key objective of presenting fishery status and trends information.

7. It now appears that the development phase of FIRMS is essentially complete (software development, data base building and partnership arrangements) and it can be expected that future efforts will focus on acquiring additional fisheries statistics from existing partners and expanding the fishery statistical database through new partnerships. It is planned that, in future, FIRMS will provide the best available information for the status and trends in fisheries available globally.

8. It is reasonable to expect WCPFC to contribute to FIRMS under a formal partnership arrangement in the medium to long term (noting that the other four tuna RFMOs are partners).

9. In the short term, as a relatively young and small secretariat with a large number of competing priorities, the Secretariat proposes WCPFC delay formal engagement with FIRMS. Once the Secretariat is better established, and it develops a capacity to meet the obligations described in the Partnership Agreement without impacting on its primary services to members, cooperating non-members and participating territories (CCMs), formalization of an arrangement with FIRMS should be considered. Postponing formal engagement will also provide more time to assess the future progress of FIRMS in servicing the expectations of its existing partners.

10. It is suggested that WCPFC participation in FIRMS meetings continue on an opportunistic basis, as an observer, taking into account costs and other logistical considerations (for example coordinating it with other activities of relevance to WCPFC – such as participating in COFI, CWP or other meetings of RFBs/RFMOs). This would not preclude WCPFC being able to informally engage in FIRMS-related initiatives by electronic means.

## **The Fisheries Resource Information System**

### **Mission**

The primary aim of the Fishery Resources Monitoring System (FIRMS) is to provide access to a wide range of high-quality information on the global monitoring and management of fishery marine resources.

### **Partnerships**

FIRMS is a partnership of international organizations, regional fishery bodies and, possibly in the future, national scientific institutes, collaborating within formal agreement to report and share information on fisheries resources. For effective fisheries information management, FIRMS also participates in the development and promotion of agreed standards.

### **The System.**

FIRMS system is part of the Fisheries Global Information System (FIGIS). Information provided by the partners is organized in a database and published in the form of fact sheets. This system provides the data owner with tools to ensure controlled dissemination of high quality and updated information.

### **FIRMS Components**

*FIRMS Steering Committee (FSC):* is constituted by representatives of the Partners: one member nominated by each partner, including FAO in its capacity of partner. The FSC technical and Administrative responsibilities are described in the Article 5 of the FIRMS Partnership Arrangement. The [FSC's Rules of procedures](#) were adopted at the launching meeting of FIRMS (Rome, February 2004) – Annex A.

*FIRMS Secretariat:* is provided by FAO. The responsibilities of the Secretariat are described in the Article 3 of the FIRMS Partnership Arrangement.

*FIRMS Technical working group:* This working group, convened by the Secretariat, works through correspondence or meetings when necessary to consult on technical issues as necessary.

*Partnership Arrangement:* FIRMS is operated under a Partnership Arrangement which was launched in February 2004 upon signature of the Arrangement by the first five FIRMS Partners. The Partnership was launched with FAO and regional fishery body institutions. It will be opened at a later stage to national institutions. The [FIRMS Partnership Arrangement](#) specifies the rights and obligations of the Partners and the rules driving the partnership (Annex B).

The [FIRMS Information Management Policy](#) defines the principles and conditions governing the sharing of information contributed by the various Partners within FIRMS (Annex C).

*Funding:* In accordance with the FIRMS Partnership Arrangement:

*FAO:* covers the costs of FIRMS development, FIRMS Steering Committee administration and the provision of the Partner entitlements under the Arrangement through regular and trust fund arrangements, to the extent that these funds allow and in accordance with its financial rules and regulations.

*FIRMS Partners:* cover the costs of information contributions to FIRMS, attendance at FSC meetings and additional FIRMS services, as required.

FIRMS receives supplemental funding support from France, and from Japan and Norway through the [Fishcode-STF project](#).

*Institutional Partners:*

- CCAMLR: [www.ccamlr.org](http://www.ccamlr.org)
- CCSBT: [www.ccsbt.org](http://www.ccsbt.org)
- EUROSTAT: [www.eurostat.cec.eu.int](http://www.eurostat.cec.eu.int)
- ICCAT: [www.iccat.org](http://www.iccat.org)
- GFCM: [www.faogfcm.org](http://www.faogfcm.org)
- FAO: [www.fao.org](http://www.fao.org)
- IATTC: [www.iattc.org](http://www.iattc.org)
- ICES: [www.ices.dk](http://www.ices.dk)
- IOTC: [www.iotc.org](http://www.iotc.org)
- NAFO: [www.nafo.int](http://www.nafo.int)
- NEAFC: [www.neafc.org](http://www.neafc.org)
- SEAFDEC: [www.seafdec.org](http://www.seafdec.org)
- SEAFO: [www.seafo.org](http://www.seafo.org)

*Observers and Candidates*

The following organizations are observers in the context of the FIRMS partnership:

- Permanent Commission for the South Pacific (CPPS)
- International Whaling Commission (IWC)
- Secretariat of the Pacific Community (SPC)
- Western and Central Pacific Fisheries Commission (WCPFC)

Pre-agreements have also been discussed or formulated at national level with:

- National Marine Fisheries Service (NMFS) - United States
- Ministry of Fisheries and Marine Resources (MFMR) - Namibia
- Fisheries Informatics Centre (FICEN) - Viet Nam
- Bureau of Rural Science (BRS) - Australia
- Fisheries and Ocean Canada (DFO) – Canada
- Institut français de recherche pour l'exploitation de la mer (IFREMER) - France

**Data Inventory**

Through their data inputs in FIRMS, FIRMS partners contribute to the global inventory of marine resources and fisheries conducted under the more general framework of The Strategy for

Improving Information on Status and Trends of Capture Fisheries, endorsed in 2003 by the FAO Committee on Fisheries (COFI).

The rationale for and global status of this inventory is available from the [Fishcode Strategy-STF web-site](#). Table 1 presents in a global perspective and for each [candidate] Partner the number of marine resources and fisheries contributed to FIRMS falling under this Partner's monitoring or management mandate. The long term goal for FIRMS is to expand these contributions with new Partners thus highlighting the gap between monitored and unmonitored resources and fisheries.

**Table 1.** Partnership contributions of marine resource and fisheries information to FIRMS (as reported by FAO).

STATUS OF FISHERIES AND MARINE RESOURCES INVENTORY						DATE: May, 2006	
Marine area	Contributed by	Description	Marine Resources		Fisheries		
			Number	Status	Number	Status	
<b>Atlantic Ocean and adjacent seas</b>							
Atlantic Ocean	<b>International Commission for the Conservation of Atlantic Tunas (ICCAT)</b>	Tuna and Tuna-like resources managed by ICCAT	22	Validated	-	Not done	
Mediterranean Sea	<b>General Fisheries Commission for the Mediterranean Sea (FAO - GFCM)</b>	Shared marine resources in the Mediterranean Sea recognized by GFCM	44	Validated	-	Not Done	
Eastern Central Atlantic	<b>Fishery Committee for the Eastern Central Atlantic (FAO-CECAF)</b>	Marine resources and National fisheries of Morocco, Cape Verde, Mauritania, Guinea Bissau, Sierra Leone, Liberia, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Gambia, Guinea, Senegal, Cameroon, Gabon, Equatorial Guinea, Congo	228	Validated	343	Validated	
Northeast Atlantic	<b>International Council for the Exploration of the Sea (ICES)</b>	Marine resources monitored by ICES, Fisheries managed by ICES	174	Validated	216	In progress	
Northwest Atlantic	<b>Northwest Atlantic Fisheries Organization (NAFO)</b>	Marine resources monitored by NAFO	18	Validated	-	Not done	
Western and Central Atlantic - Lesser Antilles	<b>Western Central Atlantic Fishery Commission (FAO-WECAF)</b>	National fisheries and Regional and National marine resources in Lesser Antilles	70	In progress	90	In progress	
Western and Central	<b>Western Central Atlantic</b>	National fisheries and Regional and National	55	Validated	45	Validated	

Atlantic - Greater Antilles	<b>Fishery Commission (FAO-WECAF)</b>	marine resources in Greater Antilles				
Western and Central Atlantic - Northern part of South America	<b>Western Central Atlantic Fishery Commission (FAO-WECAF)</b>	National fisheries and Regional and National marine resources in Trinidad and Tobago, Guyana, Surinam, French Guyana and Venezuela	154	In progress	77	In progress
Northwest Atlantic and Western and Central Atlantic	<b>National Marine Fishery Service (NMFS) - <i>FIRMS candidate partner</i></b>	USA EEZ marine resource monitored by NMFS; USA EEZ fisheries monitored by NMFS	474	In progress	30	In progress
Southeast Atlantic	<b>Ministry of Fisheries and Marine resources (MFMR) - <i>FIRMS candidate partner</i></b>	National marine resources of Namibia managed by MFMR; Fisheries of Namibia, Angola, South Africa	12	In progress	95	In progress
<b>Total</b>			1251		896	
<b>Pacific Ocean</b>						
Pacific Ocean	<b>Inter-American Tropical Tuna Commission (IATTC)</b>	Tuna and Tuna-like resources managed by IATTC	15	Validated	-	Not done
Pacific Ocean	<b>Inter-American Tropical Tuna Commission (IATTC) and South Pacific Commission (SPC)</b>	Tuna and Tuna-like resources managed by IATTC and SPC	8	Validated	-	Not done
South Pacific Ocean	<b>South Pacific Commission (SPC)</b>	Tuna and Tuna-like resources managed by SPC; fisheries monitored by SPC	14	Validated	15	Validated
Northeast Pacific and Eastern Central Pacific	<b>National Marine Fishery Service (NMFS) - <i>FIRMS candidate partner</i></b>	USA EEZ marine resource monitored by NMFS, USA EEZ fisheries monitored by NMFS	407	In progress	12	In progress
<b>Total</b>			444		27	
<b>Indian Ocean</b>						
Indian Ocean	<b>Indian Ocean Tuna Commission (IOTC)</b>	Tuna and Tuna-like resources monitored by IOTC	16	Validated	-	Not done

Western Indian Ocean	<b>Regional Commission for Fisheries (RECOFI)</b>	Fisheries of Egypt, Eritrea, Sudan, Saudi Arabia, Yemen, Bahrain, Kuwait, United Arab Emirates, Iran, Yemen, Oman			165	Validated
Western Indian Ocean - Eastern Arabian Sea	<b>Regional Commission for Fisheries (RECOFI)</b>	Marine resources of Eastern Arabian Sea (Pakistan, India, Maldives, Sri Lanka)	7	Validated		
Western Indian Ocean - Red Sea and Gulf of Aden	<b>Regional Commission for Fisheries (RECOFI)</b>	Marine resources of Red Sea and Gulf of Aden (Saudi Arabia (Red Sea), Egypt (Red Sea), Sudan (Red Sea), Eritrea (Red Sea), Djibouti (Red Sea), Yemen)	192	Validated		
Western Indian Ocean - Persian Gulf and Gulf of Oman	<b>Regional Commission for Fisheries (RECOFI)</b>	Marine resources of Persian Gulf and Gulf of Oman (Kuwait, Saudi Arabia, Bahrain, Qatar, United Arab Emirates, Iran, Oman)	134	Validated		
Western Indian Ocean - Coastal East Africa	<b>Regional Commission for Fisheries (RECOFI)</b>	Somalia, Mozambique, Tanzania, Madagascar	6	Validated		
<b>Total</b>			355		165	
<b>Pacific and Indian Ocean</b>						
Australia	<b>Bureau of Rural Science (BRS) - FIRMS candidate partner</b>	Australian fisheries at federal and national levels	-	Not done	127	In progress
<b>Southern Hemisphere</b>						
Southern Hemisphere	<b>Commission for the Conservation of Southern Bluefin Tuna (CCSBT)</b>	Global Tuna resource monitored by CCSBT; Fisheries monitored by CCSBT	1	Validated	3	Validated
<b>Southern Ocean</b>						
Southern Ocean	<b>Commission for the Conservation of Antarctic Marine Resources (CCAMLR)</b>	Marine resource managed and monitored by CCAMLR; Fisheries monitored by CCAMLR	3	Validated	18	Validated
<b>Total</b>			4		21	



World overview	<b>Food and Agriculture Organization (FAO)</b>	Marine resources with high level of aggregation already included in the total of specific areas	25	Validated	
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**Annex A of Attachment A  
Rules and Procedures**

**Annex B of Attachment A  
Partnership Agreement**

**Annex C of Attachment A  
FIRMS Information Management Policy**