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**REVIEW OF THE FIRMS ACTIVITIES DURING THE**  
**INTERSESSIONAL PERIOD (February 2013 – January 2015)**  
**Secretariat Report on Progress and Issues**  
**Author: FIRMS Secretariat**

**Management Summary**

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## 1. Developments on Marine Resource and Fishery inventories and related FIRMS fact sheets

Beyond the regular workflow and dissemination activity by FIRMS partners and Secretariat, main aspects regarding the inventories and the fact sheets are described in the following sections.

### 1.1 Marine Resource inventories

- CCAMLR: A first version of the marine resources inventory has been finalized and fact sheets published accordingly.
- GFCM: Inventory was enriched with several marine resources. Information is still needed from the partner for the finalization of some objects in the database. Related reference observations were created and fact sheets published for a subset of them.
- ICES: Inventory was considerably enriched and rearranged according to the new ICES Advice 2012.

FAO and its Article 6 RFBs:

- FAO: New regional Marine Resource fact sheets based on the latest “Review of the state of world marine fisheries resources” were published. Links to State and Trend summaries per area were added harvesting partners’ contributions, e.g. <http://firms.fao.org/firms/summaries/search/area/21/en> or <http://firms.fao.org/firms/summaries/search/area/51/en>
- CECAF: A revision of the section “Coastal small pelagics - Northern Area of the Eastern Central Atlantic (FAO Statistical Area 34)” was done in order to better reflect the structure of the latest published reports of the Assessment Working Group. Related fact sheets were published.
- WECAFC: a first version of the marine resources inventory was drafted in occasion of the FIRMS-WECAFC Workshop (Corpus Christi, USA, 1-2 November 2013). A prototype fact sheet is ready for being evaluated as part of the initiated FIRMS-WECAFC collaboration.
- BOBLME (Bay of Bengal Large Marine Ecosystem project): a first attempt to apply FIRMS methodology to the BOBLME context was done during the Working group on Hilsa stock Assessment (Barrackpore, Kolkata, India, 26-28 November 2014). A prototype for a regional stock assessment fact sheet was prepared and submitted.

Further details of FIRMS partners’ activities are available under the document section FIRMS FSC9/2015/2.

### 1.2 Fishery inventories

- NASCO: a first version of the fisheries inventory was produced and a Jurisdictional approach fact sheet published.
- DG MARE: two case studies fact sheets (Production system approach) were published.
- CCAMLR: the fishery inventory was updated matching the work done on marine resources and new fact sheets were published accordingly.
- SEAFO: compilation of fishery management units are in working progress.

FAO and its Article 6 RFBs:

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- FAO: New Fishery fact sheets based on the latest “Review of the state of world marine fisheries resources” were published: [World oceans - Global Tuna fisheries](#) ; [World oceans - Deep-sea fisheries](#) ; [Pacific Islands Region - Marine fisheries](#).
  - CECAF: new fisheries fact sheets based on National fisheries inventories were produced and published for Spain, Angola, Côte d’Ivoire and Gabon. Final clearance was requested for Morocco, Congo and Benin, answers are pending and more than one hundred fact sheets are ready to be published.
  - SWIOFC/IOTC: the collaboration within the Indian Ocean network, under the SmartFish project resulted in the creation of the Chimaera regional fishery portal, a unique entry point for searching and retrieving data from FIRMS, WIOFish and STATBASE. In this region, FIRMS hosts Marine resources, while WIOFish nicely complements FIRMS with a comprehensive inventory of fisheries. An attempt for updating both inventories was made during this process with the focal points. Strengthening of the collaboration between FIRMS and WIOFish is expected during SmartFish phase 2.
  - WECAFC: a first version of a Regional fisheries inventory was drafted in occasion of the FIRMS-WECAFC Workshop (Corpus Christi, USA, 1-2 November 2013). The Saint Lucia National inventory was finalized afterwards. Prototype fact sheets are ready for being evaluated as part of the initiated FIRMS-WECAFC collaboration.
  - BOBLME (Bay of Bengal Large Marine Ecosystem project): a first attempt to apply FIRMS methodology to the BOBLME context was done during the Working group on Hilsa stock Assessment (Barrackpore, Kolkata, India, 26-28 November 2014). A regional management unit fishery and three national fishing activity fact sheets were prepared and submitted.

FAO RFBs article 14 (full FIRMS partners):

- RECOFI: Fisheries inventories were finalized for Bahrain, Iran, Qatar and Oman. Related fact sheets (Fishing activity and Management unit approaches) were published.

### **1.3 Indicators on FIRMS Marine Resource and Fishery fact sheets**

The following tables and graphs show the total number of units inventoried (1282 marine resources and 686 fisheries) and the trends regarding the production of fact sheets per partners vs. reference years.

The FIRMS web site is currently disseminating fact sheets as follows: 789 current records (i.e. primary observations: 594 marine resources and 195 fisheries) and 438 historical records (i.e. secondary observations: 415 marine resources and 23 fisheries)<sup>1</sup>.

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<sup>1</sup> These figures include three BNP (FAO Big Number Project) and 2 DG Mare case studies fact sheets not included in the following summary tables and graphs.

**Table 1:** FIRMS Marine Resources and Fisheries inventoried units<sup>2</sup>, Reference Observations<sup>3</sup> (RO) and number of fact sheets<sup>4</sup>. (Updated 12<sup>th</sup> February 2015)

Partner	Inventoried units	Reference Observations		Fact Sheets by Reference Year										
		Resources	Fisheries	≤ 2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CCAMLR	18	18						2		1		15		
	18		18					7			18			
CCSBT	1	1											1	
FAO	22	22		4					18					
	3		3						3					
CECAF	217	217		87	7	17	8	7			6			
	289		198								77		4	
RECOFI	103													
	68		68									68		
SWIOFC	141	137							117					
WECAFC	269	240		44										
	250		2											
GFCM	126	64		21		5	10	7		24				
IATTC	23	23										8		
	15		1									1		
ICCAT	29	29		1	1		5	3	5	4	5		2	3
ICES	288	286		145	2	52		174				83		
IOTC	15	15		4	1		1	2						
NAFO	18	18		17	8	10	5	9	11	13	5	11	8	
	5		5						1	2	3	4	5	2
NASCO	7		1										1	
NEAFC	11		11						8					
SEAFDEC	14		14	6		2								
SEAFO	12	12							12					
	6		1									1		
Total	1968	1082	322	328	18	86	28	211	172	44	114	191	21	5
		1404			1222									

<sup>2</sup> For each Partner, the first row represents the number of Marine Resources and the second row the number of Fisheries; the “inventoried units” are the total number listed in Excel sources (excluding headers and groups). When source inventoried units are validated, one “inventory record” is created in the FIRMS database for each inventories unit.

<sup>3</sup> Reference Observations are “inventoried units” loaded in the FIRMS system against the “inventory records”, with all the stable/long lived descriptive metadata

<sup>4</sup> Fact Sheets are inventoried units for which state and trend reports or other qualitative and quantitative information have been loaded in the system. The most recent fact sheet for a given inventoried unit is the primary observation, while older fact sheets have a status of secondary observation, which according to partners’ policy remain or not in the public domain.

## Notes

- IATTC, ICCAT, CCSBT: as per these partners' policies, historical observations are hidden, only the latest reports are available in internet
- SEAFO provided updates for five marine resources not yet loaded in the database at the time of the compilation of this report. Fishery fact sheets are in progress.
- CECAF and WECAFC: Numbers of reference observations and related fact sheets are changing due to the current inventories' validation and loading process. Other several fishery fact sheets are presently at their final validation phase, one step away before being published.
- Figures for BNP (FAO Big Number Project) (3 fisheries) and DG Mare (2 fisheries) are not reported due to their nature of case study.
- Figures for BOBLME project (1 marine resource and 4 fisheries) are not reported in the above table because of its very initial status.

**Table 2:** Fact sheets update turn-over expressed in percentage as ratio of number of fact sheets on total number of Reference Observation (RO). (Updated 12<sup>th</sup> February 2015)

Partner	Inventoried units	Reference Observations		%Fact sheets/RefObs										
		Resources	Fisheries	≤ 2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CCAMLR	18	18	0					11		6		83		
	18	0	18					39			100			
CCSBT	1	1	0										100	
FAO	22	22	0	18					82					
	3	0	3						100					
CECAF	217	217	0	40	3	8	4	3			3			
	289	0	198								39		2	
RECOFI	103	0	0											
	68	0	68									100		
SWIOFC	141	137	0						85					
WECAFC	269	240	0	18										
	250	0	2											
GFCM	126	64	0	33		8	16	11		38				
IATTC	23	23	0									35		
	15	0	1									100		
ICCAT	29	29	0	3	3		17	10	10	14	17		7	10
ICES	288	286	0	51	1	18		61				29		
IOTC	15	15	0	27	7		7	13						
NAFO	18	18	0	94	44	56	28	50	61	72	28	61	44	
	5	0	5						20	40	60	80	100	40
NASCO	7	0	1										100	
NEAFC	11	0	11						73					
SEAFDEC	14	0	14	43		14								
SEAFO	12	12	0						100					
	6	0	1									100		

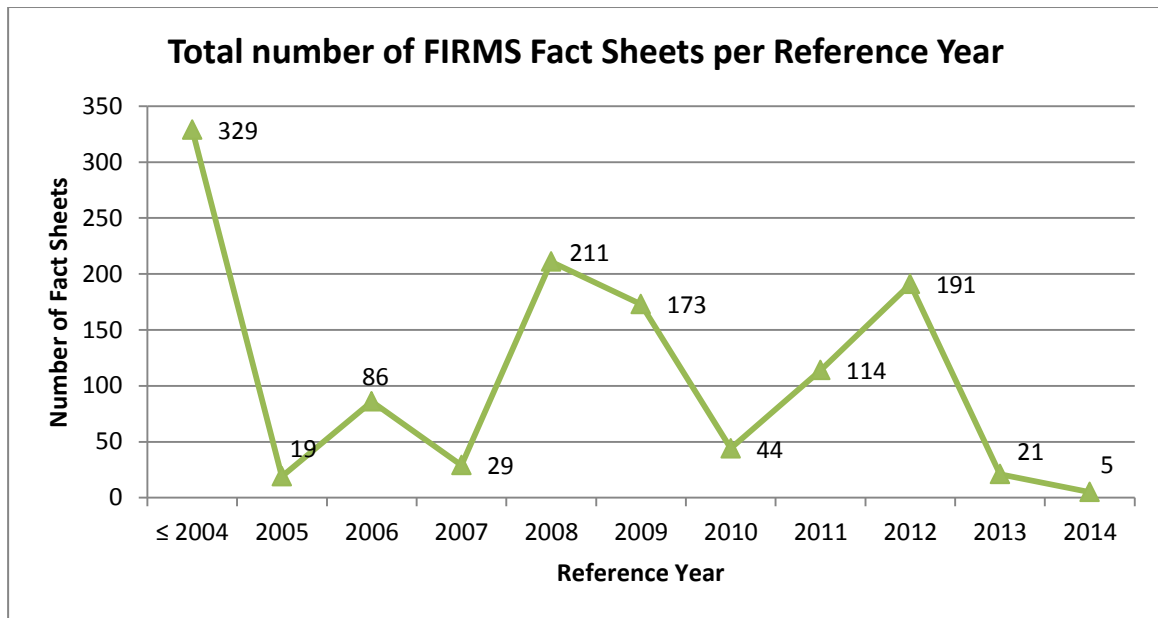


Figure 1: Total number of fact sheets per Reference Year

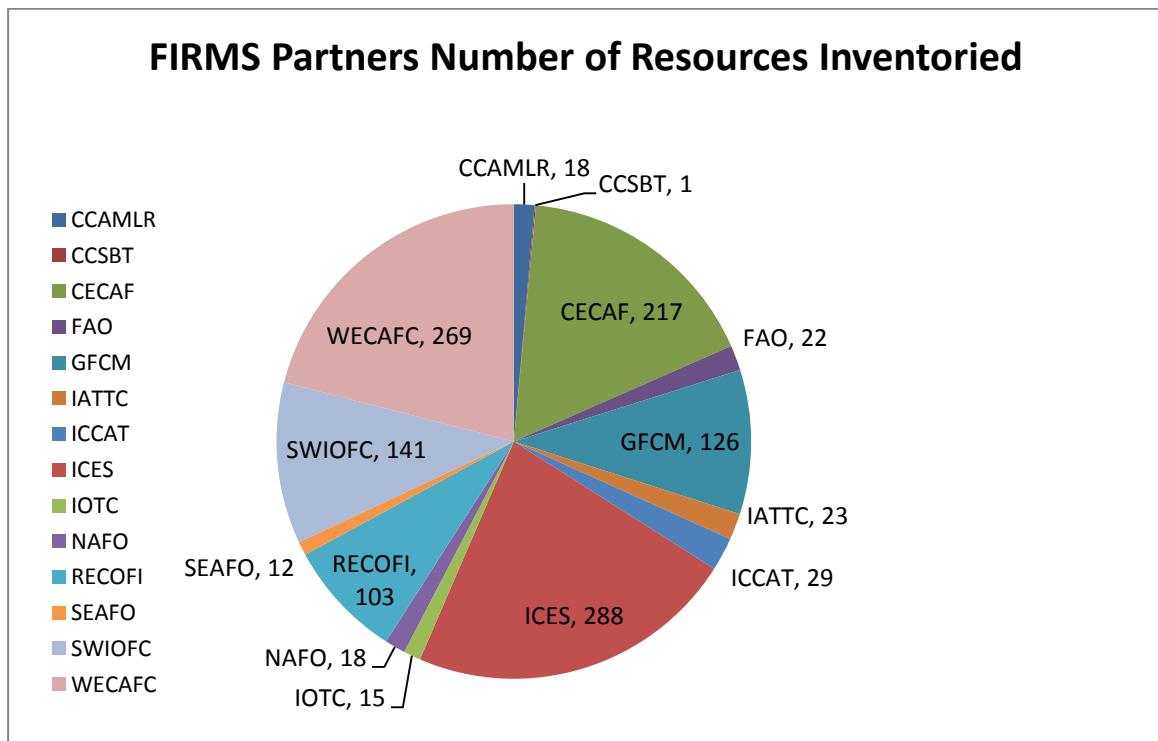
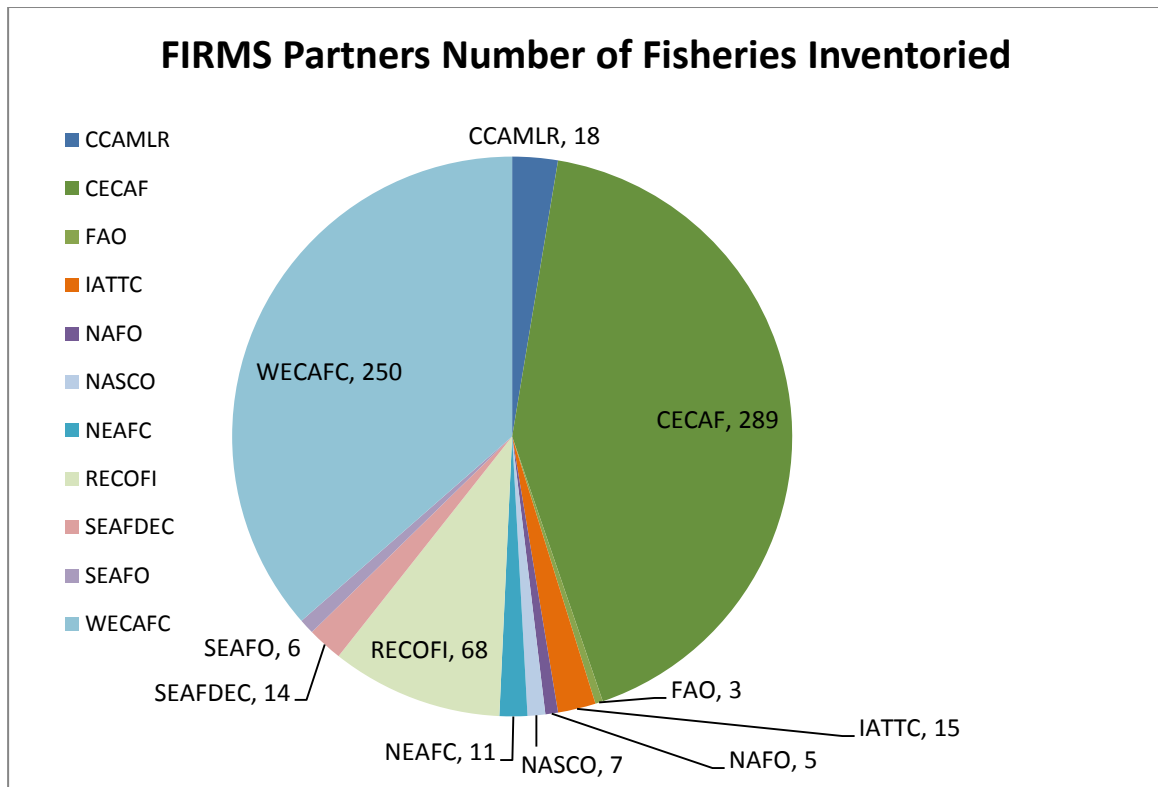
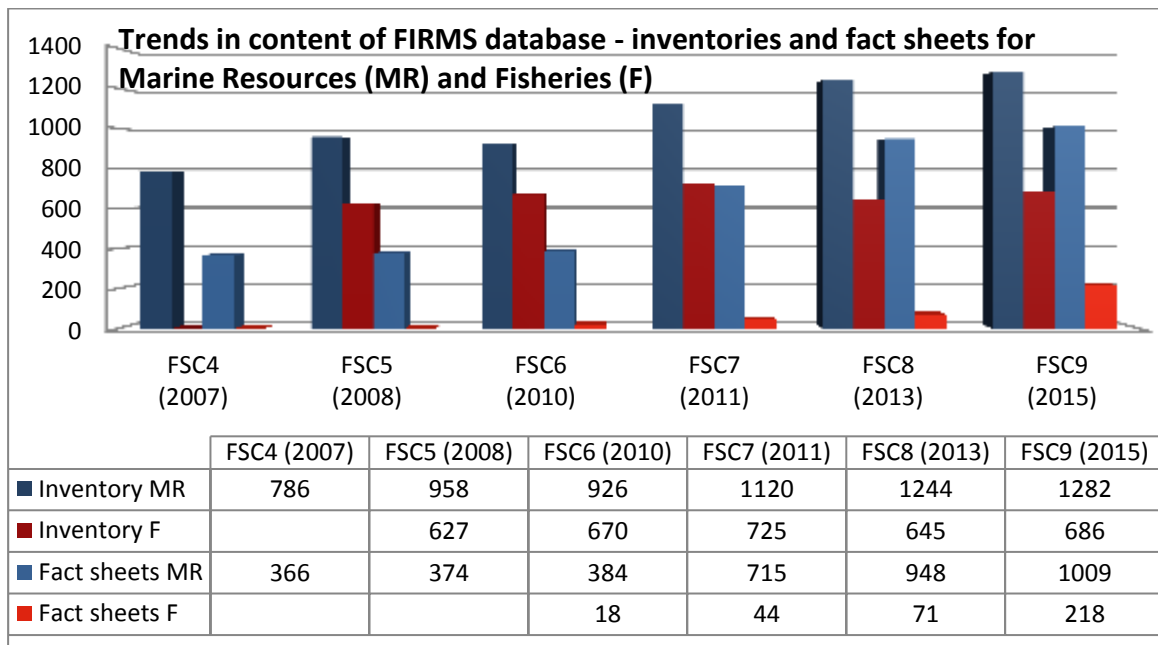


Figure 2: FIRMS Partners Number of Resources Inventoried



**Figure 3:** FIRMS Partners Number of Fisheries Inventoried



**Figure 4:** Trends in content of FIRMS database – inventories and fact sheets for Marine Resources (MR) and Fisheries (F)

Figure 4 depicts the growing trend across FSCs of inventoried Marine resources and fisheries, and fact sheets published (i.e. status and trends reports) for these inventories. Since the FIRMS launch, the total effort to produce status and trends reports can be calculated as the total number of primary (ie “current”) and secondary

(ie “past”) observations for both Marine Resource (1009 observations) and Fisheries (218 observations).

## **2. Development of Applications**

Scope: the FIRMS website is currently articulating the following modules:

- FIRMS fact sheets: Marine Resource, Fishery
- FIRMS web site pages: Topic, Organization
- Web application
  - Workflow Management System (WMS), including Content Management System (CMS) and Word/Excel-to-XML converter tools;
  - Dynamic mapping component;
  - Web services.

### **2.1 FIRMS fact sheets**

#### **Marine Resource**

This module has been updated with the new handling and display rules for reference year (FSC8, TWG 4.3).

It is still pending the alternative layout for no longer monitored marine resources (Monitoring period, FSC8), and the display of partners’ logo in the fact sheets (FSC8).

#### **Fishery**

This module has been updated with the new handling and display rules for reference year (FSC8, TWG 4.3).

Customized links were implemented for Related fisheries based on different concept-relationships: Fishing activities, Management, Reporting level.

Like the marine resource module the alternative layout for closed fisheries (Fishery life cycle, FSC8) and the display of partners’ logo in the fact sheets (FSC8) have not been implemented yet.

### **2.2 FIRMS web site pages**

The new FIRMS name and logo were updated to reflect the decision FSC8/D7.8.

During the FIRMS SC8 (February 2013 - see section 9. Intersessional Work Plan), it was conveyed the need of an overall upgrade of the FIRMS website. The work started during the intersessional period collecting opinions and proposals from TWG members during TWG4.2 and 4.4.

TWG indicated that the renewal should be more focused on layout design and new user interface facilities. More details are available in the TWG4 Reports and in the Wiki [http://figisapps.fao.org/FIGISwiki/index.php/Renewing\\_the\\_FIRMS\\_website](http://figisapps.fao.org/FIGISwiki/index.php/Renewing_the_FIRMS_website)

### **2.3 Web applications**

#### **Workflow Management System (WMS)**

The expression WMS covers the on-line Content Management System (CMS) and the conversion tools used to streamline at Partner and Secretariat level the compilation of documents from their native format (Word or Excel) into the XML format for the web dissemination.

The following improvements took place during the intersessional period:

The Excel/Word-to-XML converter tool was further configured and massively utilized to produce and publish reference observations and fact sheets;

The species name finder, an iMarine “Bionym” component, was used to facilitate the validation of species scientific names within the Excel based fishery inventories.

### **Dynamic mapping component**

Overall requirements for a “Stocks and Fisheries map viewer” were discussed at TWG 4.4. Such interface should be capable to display stocks, fisheries and other relevant layers in a given area, upon user requests. The work is in progress.

More details are available at:

[http://figisapps.fao.org/FIGISwiki/index.php/Renewing\\_the\\_FIRMS\\_website#Stocks\\_.26\\_Fisheries\\_map\\_viewer](http://figisapps.fao.org/FIGISwiki/index.php/Renewing_the_FIRMS_website#Stocks_.26_Fisheries_map_viewer) and in the TWG 4.4 report.

### **FIRMS data coverage maps**

No changes were made in the data coverage maps published in the FIRMS website, but due to new inventories (e.g. BOBLME project) there will be updates during the next intersessional period.

## **3. Status of FIRMS website**

This section is a concluding statement on the status of the FIRMS website, which highlights what is done and working well, what is not completed, and what should be started. It should be pointed out that many decisions from FSC8 have been implemented regarding the website (see Annex 1).

### **3.1 Database content**

During the intersessional period, some new Marine Resource inventory records have been stored in the FIRMS data base and the related fact sheets have been produced and disseminated.

FIRMS is presently disseminating state and trends information on 594 Marine Resources through 1009 published fact sheets (594 primary and 415 secondary observations).

Concerning the Fishery module, several fact sheets were produced and published. FIRMS is presently disseminating information on fisheries through 218 fact sheets (195 primary and 23 secondary observations).

It should be noted that some partners’ policies lead them to unpublish fact sheets in order to avoid the dissemination of historical, or (when the history consists of only one report) of outdated information. For this reason the overall number of published fact sheets can show a fluctuating trend over the years. One of the most obvious consequence of such policies is the loss of any information related to those marine resources or fisheries at FIRMS public site level.

### **3.2 Website shell**

The FIRMS website shell now offers a new topic giving access to the latest FAO reports on “Review of the state of world marine fisheries resources”.

### **3.3 Marine Resource and Fishery dissemination modules**

In addition of what was obtained by FIRMS FSC8, further improvements are regularly implemented at layout level any time the need emerges from new data submissions.

### **3.4 Mapping module**

The mapping module is integrated within FIGIS. Thus the recent work done on VME database map interface gave positive side effects on FIRMS. Practically:

- More technical improvements resulted in faster map loading and display;
- Additional layers could be potentially exploited in the envisaged stocks & fisheries map viewer.

### **3.5 Services offered by the FIGIS infrastructure to the Partners**

Following services are regularly available:

- Marine Resource or Fishery fact sheets can be returned in HTML, or in XML format. The later enables a partner to reformat it for another purpose (e.g. as PDF to include as part of a paper report, or as HTML as part of a partner website);
- State and Trend Summaries can be downloaded as Excel files for further analysis
- Web-services are available enabling Partner's websites or systems to query and retrieve specific subsets of factsheets given an area or a species.

### **3.6 Web trends statistics**

The detailed and illustrated analysis of web trends statistics during years 2007-2014 is available in document FIRMS FSC9/2015/Inf.8<sup>5</sup>. Here follows some conclusions based on the above mentioned document. The analysis conducted is based on the web trends provided by Google Analytics and refers to the period January 2007 - December 2014.

The analysis of FIRMS Web trends shows that the overall number of visits and pages mostly increased along time with two negative fluctuations in 2012 and 2014. Both inversions were mostly caused by technical incidents reducing the crawling and indexing activities of Google. In 2012 it was due to robots no longer accessing the FIRMS website; in 2014, presumably starting on May 2013, the FIRMS sitemap was no longer read. A new dynamic sitemap was then developed and submitted to Google in autumn 2014.

Another factor contributed to the negative between 2013 and 2014: a reduced number of pages per visitor (session) who, in fact, did not diminish proportionally with the decrease of page views. Such decrease was mostly equally distributed among FIRMS web pages but the home page which significantly decreased more. This could be justified with the search engines being no longer the first source of traffic but the second one after the referral traffic.

In fact the analysis on traffic sources show that 44% of access to FIRMS is through referral sites, while about 37% is through search engines (mostly Google) and the

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<sup>5</sup> Doc. FIRMS FSC9/2015/Inf.8 is accessible at [ftp://ftp.fao.org/FI/DOCUMENT/FIGIS\\_FIRMS/2015/inf8e.pdf](ftp://ftp.fao.org/FI/DOCUMENT/FIGIS_FIRMS/2015/inf8e.pdf)

remaining 19% is due to direct traffic. Data from previous web trend analysis show that search engines were the first source of traffic and this would further justify the above explanation about a lower ranking assigned to FIRMS by Google.

The Google search engine, and the FAO website equally represents two third of the whole sources of traffic.

The bounce rate (i.e. the percentage of single-page visits) is higher for the home page and other gateway pages (i.e. Concepts) while it is lower significantly for search interfaces and thematic pages.

This trend suggests that users are interested in authoritative sources of information on status of fishery resources, but, in some cases, they give up for various reasons. Possible causes could be a complex navigation, lack of friendliness, incomplete coverage, and difficulty in finding what they are looking for.

The following results are based on cumulated web trends across the whole 2007-2014 period. These coarse scale results can be interpreted only as global and smoothed over a 7 years period.

Mostly North America followed by Europe is the region with the highest level of visits. 70% of the visits are made by English-based browsers. Most of countries worldwide (except some landlocked countries) have accessed FIRMS.

Among the top viewed pages, there are the home page, the search page interfaces and several fact sheets. Among the fact sheets, the most consulted ones are:

- the tuna fact sheets which are the most visited both for the Marine Resource and Fishery domains;
- the higher level global or regional syntheses, sourced from the FAO regional review;
- several Fishery fact sheets, particularly the ones containing management information.

A comparative analysis with the FI website and three of its most popular modules was conducted along the year 2014. The FIRMS fact sheets compare reasonably well with selected FI domains: FIRMS Marine Resource and Fishery fact sheets correspond to 10% of National Aquaculture Sector Overview (NASO), about 14% of Aquatic Species fact sheets, and 30% of Fishery and Aquaculture Country Profile (FACP).

The recent trends also show a growing interest in the Fishery module concurrently with the release of new fact sheets.

These figures bring to the following considerations:

- users are interested by an authoritative source of information on the state of resources, but that a significant proportion of these users are not immediately satisfied;  
various hypotheses can be put forward, lack of friendliness or appeal of the home page, incomplete coverage, etc.; the need to upgrade the FIRMS website and search interfaces tailored to its target audience (identified by FSC6-FSC8) and as recently discussed during TWG4 e-meetings: “...*the renewal should be more focused on layout design and new user oriented interfaces. New ways of giving access and consuming the FIRMS content, not only through accessing the full reports but with alternative interfaces and mechanism to offer quick access to status and trends of stocks and fisheries...*” (extracted from FIRMS Wiki);
- although global /regional syntheses respond to users’ interest the developed thematic pages did not grow as expected;

- the referral traffic is confirmed as an important source of accessing FIRMS and the addition of specific links, not only the home page but also the fact sheets, from partners websites would bring additional traffic and consequently the visibility to partners' reports;
- the high referral traffic is also due to the web site cross-referencing, e.g. the addition of relevant FIRMS fact sheets (i.e. country related ones) to the FACP fact sheets contribute to raise awareness of FIRMS as authoritative source of information; other specific links are planned (e.g. FAO FishFinder's aquatic species fact sheets);
- generally a need to proceed with a strong communication plan agreed upon and supported by all FIRMS partners.

#### **4. Training or skills development**

The FIRMS Secretariat ensured a continuing remote technical support to partners in their information contributions to FIRMS, or in the development of their inventories or reporting templates. Recent focussed assistance includes liaising with CCAMLR and NASCO for the submission of new reports.

A dedicated WECAFC–FIRMS Workshop was run on Marine Resources and Fisheries Inventories (Corpus Christi, USA, 1-2 November 2013).

The list of past training sessions is available in FIRMS website – members' area at <http://firms.fao.org/firms/training/en> (login required).

#### **5. Promotional and outreach activities**

The promotional and outreach effort proceeded according to FSC8 recommendation to work towards increasing the number of partners and promoting FIRMS through partner's websites.

In this context, the following activities were carried out:

- FIRMS Secretariat met CPPS and WCPFC representatives in order to revitalize their Observer status and explore the possibility towards a true memberships;
- FIRMS participation in the SmartFish project and the collaboration with other fisheries data and information networks of the South West Indian Ocean (WIOFish and Statbase) resulted in the creation of a beta version of the Chimaera regional fishery portal. Further developments are needed and are under evaluation within phase 2 of SmartFish project.
- During the FIRMS-WECAFC workshop (Corpus Christi, USA, 1-2 November 2013) representatives of WECAFC, CRFM and OSPESCA were met. The former applied for and Observer status within FIRMS while for the latter an interaction is still in progress in that sense. Nevertheless, their role was already formalized within the WECAFC-FIRMS framework (see new WECAFC Annex 2); capacity building activities have been secured for inventories development through the FAO project "Strengthening national data collection and regional data sharing through FIRMS to support priority regional fishery management plans in the WECAFC area" financially supported by EU/DG MARE.
- The use of FIRMS-WECAFC information and its potential offering was promoted in the context of the Caribbean Large Marine Ecosystem (CLME+) Project, as well as in the related Caribbean Marine Atlas project (CMA

phase2). In CLME+, FIRMS is earmarked as an important capacity building activity aiming at developing inventories and status and trends reporting for three major regional fishery management plans, and at contributing to a Decision Support System on the state of environment and ecosystems in the Western Caribbean Region.

- The FIRMS Secretariat attended the BOBLME Hilsa Working Group, Barrackpore, India within the context of BOBLME project presenting FIRMS potentiality and preparing mockups of possible data scenarios in the area. These results will be presented to the BOBLME Statistical workshop in April 2015 where further developments will be discussed, with the perspective to support these developments as part of BOBLME phase 2 under preparation.
- FIRMS was included in the formulation of the "Strengthening routine fisheries data collection in West Africa" project (TCP/RAF/FCWC) in support to FCWC, which was presented to FAO for approval.
- FIRMS was included in the formulation of the EU H2020 BlueBRIDGE project with the aim to enable, as backbone of a Global Record of stocks and fishery identifiers, the systematic generation of global/regional summary indicators on the status of fishery resources, and to facilitate traceability and certification of fishery products.

New memberships:

- NASCO formalized its accession to FIRMS partnership.
- WECAFC is evaluating the possibility to become a full member.
- SPRFMO is evaluating the possibility to become a full member.

Concerning the advertisement of FIRMS, and following the recommendation of the FSC6 and previous meetings, all members should draw links from their websites to FIRMS. In addition they should promote FIRMS within their internal mechanisms, including by inviting their member countries to draw links from their national websites. Most of the partners did draw links in their websites with different level of visibility. IOTC, NEAFC are invited to follow up.

The following table summarizes training-promotional activities conducted during the intersessional period.

**Table 5** : promotional and direct outreach interventions of FIRMS Secretariat

<b>Organization / place of meeting</b>	<b>Description</b>	<b>Date</b>
FIRMS-WECAFC Workshop	FIRMS Secretariat organized an ad hoc workshop to validate existing inventories in WECAFC context and formalizing a workflow including also CRFM and OSPESCA contribution.	November 2013
WECAFC Commission 15	FIRMS Secretary attended the Commission meeting to present FIRMS to WECAFC member countries. WECAFC approved the proposed collaboration protocol with FIRMS together with CRFM and OSPESCA, and endorsed the Annex 2.	March 2014
SWIOFC/IOTC-SmartFish Chimaera validation workshop	FIRMS Secretariat attended a meeting for the validation of the Chimaera prototype, an unique entry point for searching and retrieve data from FIRMS, WIOFish and STATBASE. During the meeting, FIRMS partnership and products were described to participants.	January 2014
BOBLME Hilsa Assessment Working group	FIRMS Secretariat attended the Hilsa assessment workshop. During the meeting, FIRMS partnership and products were described to participants.	November 2014

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## 6. Secretariat Resources in support to FIRMS

As in the previous report, the overall effort spent by the FIRMS Secretariat on various aspects of FIRMS activities has been monitored during the 24 months of the intersession (02/2013 -01/2015), and the corresponding cost is compiled by major activity in table 6. References to the previous intersessional periods are provided in table 7.

The total time invested amounts to 2.95 man-years for an equivalent of \$233 336. Normalised to a 1 year period, we obtain 1.48 man-year effort for an equivalent of \$116 667, a lower level than the previous intersessional period 2011-2013 (2.02 man-years for an equivalent of \$ 150 247).

Comparison to the older intersessional periods is also provided: 1.81 man-years for an equivalent of \$121.000 for 2010-2011, 2 man-years for an equivalent of \$135.000 for 2009, 1.25 man-year for an equivalent of \$136.000 during years 2007-08, and 4.4 man-years for an equivalent of \$440,000 during year 2006 (launch of FIRMS).

The distribution of costs by main type of activities is as follows:

- 75% of the effort (against 61% in 2011-2013, 67% in 2010-2011, 58% in 2009, 30% in 2007/8 and 44% in 2006) for information contributions (i.e. FAO inputs or assistance to Partners inputs including through training, and regular maintenance of FIRMS infrastructure);
- 17% of the effort (against 33% in 2011-2013, 27% in 2010-2011, 34% in 2009, 44% in 2007/8 and 73% in 2006) was dedicated to software design and development: essentially maintenance of the software, new logic for handling observations, sitemaps and few improvements and interface level and ;
- 8% of the effort (against 7% in 2011-2013, 6% in 2010-2011, 8% in 2009, 23% in 2007/8 and 13% in 2006) to management and marketing;

As can be noted in table 6 and previous reports, Mrs. Elena Balestri has since the FIRMS launch dedicated most of her professional time to support FIRMS partners in their information contribution. Mrs. Balestri has recently been recruited to work for a Scottish NGO and left FAO at the end of 2014. The Secretariat wishes to express here his high recognition for the highly dedicated work which Elena accomplished to support FIRMS and its partners. The Secretariat wishes her good success in pursuing her professional career.

In addition:

- a budget of \$22.000 (\$11.000 normalised to a one year period) has been allocated to travel costs in support to the participation of Secretariat and WECAFC focal point to FSC meeting, FIRMS participation at WECAFC workshop and WECAFC Commission15, FIRMS participation at the BOBLME Hilsa working group meeting, and FIRMS Secretariat presence in the SmartFish project. 2/3 of this budget was provided by FAO's Regular programme, 1/3 being funded by EU/SmartFish, EU/WECAFC, and GEF/BOBLME projects.
- the joint EU funded projects SmartFish and iMarine did significantly contribute to expand the FIRMS potential capacities both in terms of content coverage (collaboration with WioFish on fisheries inventories) as well as software potential, for a total budget of about \$60.000 (\$30.000 normalized to one year).

This "extra" support to FIRMS growth which amounts to \$ 82.000 (ie \$ 41.000 normalised to a one year period) compares well with the previous intersessions (\$ 20.000 for FSC7/8, \$31.000 for FSC6/7 intersession, \$40.000 for FSC5/6, normalised to a one year period).

This analysis shows that while stepping into the new FAO Strategic Framework, the Regular Programme support to FIRMS has been maintained and primarily to support information contributions, while extra support for FIRMS growth was maintained through a mix of Regular programme and extra-budgetary sources mobilized by the Secretariat. The total amount of funding remains globally stable compared with the previous intersessional period.

Table 6: Effort in [man x days] spent on FIRMS by major activity during period 02/2013 – 01/2015 (24 months).

Application requirements and Software development (days)						Information contributions (days)			(days)	(days)
	Web site upgrade and technical support	Marine Resource module	Fishery module	Dynamic mapping tool – thematic pages – FIRMS data coverage	Word/Excel-To-XML	Training / Assistance to Partners (including inventories & meetings)	Direct Data update (FAO)	Routine maintenance website and Wiki	Management and marketing	Total
<b>M. Taconet</b>			4			8			40	52
<b>E. Balestri</b>		5	7		4	210	190	6		422
<b>A. Gentile</b>		2	4		3	54	1	10		74
<b>M. Balestra</b>	8	1	1		1					11
<b>T. Berger</b>		2	3							5
<b>F. Sibeni</b>		2	3							5
<b>E. Blondel</b>				13				1		14
<b>T. Jarrett</b>	7									7
<b>E. Van Ingen</b>	42							3		45
<b>P. Bravo</b>									9	9
<b>TOTAL effort</b>	57	12	22	13	8	272	191	20	49	644
<b>% time/activity</b>	9	2	3	2	1	42	30	3	8	100
<b>TOTAL \$US</b>	\$35,744	\$4,844	\$11,453	\$2,535	\$2,715	\$81,186	\$40,555	\$8,933	\$42,872	\$233,336

The overall yearly budget level of \$158.000 during the FSC7/8 intersessional period (\$170.000 during the FSC7/8, \$156.000 during FSC6/7, \$175.000 during FSC5/6) confirms a cruise level budget reported since FSC5. Under the new Programmatic framework implemented at FAO, the amount of FAO Regular Programme resources which has been allocated to maintain FIRMS was consolidated which confirms an internal recognition that FIRMS is among the “global goods”. The Secretariat is continuing its effort to mobilize extra-budgetary funding when regional interest is expressed for FIRMS. In the forthcoming period, the SmartFish activities involving FIRMS will continue in a phase 2 until 2016 and this will generally support FIRMS development in the South West Indian Region; extra-budgetary funded projects are

secured or being secured in support to the WECAFC region, West Africa / Gulf of Guinea (FCWC), and the Bay of Bengal. Additionally, the support to FIRMS objectives of generating more systematically global stock status indicators is earmarked as part of the BlueBRIDGE formulated project, which hopefully will be selected for funding in the framework of EU H2020. Other opportunities at global and regional level might materialize during 2015 through GEF Coastal Fisheries Initiative projects (CFI) for which FAO just got leadership. The inputs of RFB partners to EBF-raising or opportunities are welcomed.

Table 7: Historical trends of total effort and costs.

	Software development	Training/Assistance – Data update	Management and Maintenance	
<b>TOTAL effort February 2013 - January 2015 (24 months)</b>	112 d.	463 d.	69 d.	644 d.
<b>TOTAL \$US</b>				\$233,336
<b>TOTAL effort December 2011- January 2013 (14 months)</b>	169 d.	291 d.	58 d.	533 d.
<b>TOTAL \$US</b>				\$175,288
<b>TOTAL effort 2010-11 (22 months)</b>	179 d.	400 d.	70 d.	649 d.
<b>TOTAL \$US 2010-11</b>				\$211,118
<b>TOTAL effort 2009 (21 months)</b>	231 d.	375 d.	73 d.	646 d.
<b>TOTAL \$US 2009</b>				\$205,000
<b>TOTAL effort 2007/8</b>	159 d.	108 d.	83 d.	360 d.
<b>TOTAL \$US 2007/8</b>				\$180,000
<b>TOTAL effort 2006</b>	668 d.	182 d.	98 d.	948 d.
<b>TOTAL \$US 2006</b>				\$440,000

## 7. Difficulties encountered during the inter-sessional period

Within “cruise speed inputs” limits reported in the above Resources chapter, there were no real budgetary constraints on both Regular Programme allotments and Project funding support. Normal maintenance of the FIRMS programme has remained a priority area for the Fisheries and Aquaculture Department and has become part of the FAO Strategic Objective 2 “Sustainable use of natural resources”. More budgetary availability would certainly allow to strengthen a timelier assistance to Partners, considering in particular the huge effort required to support information updates from involved FAO RFBs. Along with the general principles of the new FAO Strategic Framework, the strategy now followed from the 2014-15 biennium is to promote ownership of FIRMS reporting and associated extra-budgetary funding support at the level of regional stakeholders.

During the forthcoming intersession, Regular Programme will dedicate some resources to support the renewal of the FIRMS user interface. This will occur as far as possible with the support of some extra-budgetary (EBF) resources, e.g. the BlueBRIDGE project proposal if successful. The EBF resources in support to regional uptake of FIRMS in BOBLME, SWIOFC, WECAFC, and FCWC are promising in terms of FIRMS coverage expansion. Additional EBF resources might materialize with the BlueBRIDGE project, or with the GEF/Coastal Fisheries Initiative, to support FIRMS system capacities.

The difficulties and related delays were rather of scheduling nature.

Scheduling: responses from some partners are delayed or absent both in occasion of updating the inventories or producing fact sheets. New forms of interaction should be found in order to reduce burden from both sides and speed up the process.

Nevertheless many of the activities planned at FSC8 can be reported as being implemented or in progress to FSC9 (see Annex1 or Wiki [http://figisapps.fao.org/FIGISwiki/index.php/Talk:FIRMS\\_FSC8\\_Meeting](http://figisapps.fao.org/FIGISwiki/index.php/Talk:FIRMS_FSC8_Meeting)).

## **8. Potential activities during the coming intersessional period.**

Besides the normal assistance to Partners and the maintenance of FIRMS website, this section presents Secretariat's view point on the developments which should logically follow from the progress made during this intersession. These developments should be prioritized and the accomplishment of some of them will depend upon the capacity to mobilize additional project resources.

These developments can be articulated around four main areas:

- Expanding FIRMS coverage and timeliness of reporting.
- Renewal of FIRMS user interface;
- Requirements for the Global record of stocks and fisheries;
- Promotion of FIRMS.

For some of these activities, FSC9 might decide to convoke a Technical Working Group (e.g. through e-Meetings). FSC9 will establish priority areas of development.

### **8.1 Expanding FIRMS coverage and timeliness of reporting**

Expanding FIRMS geographic data coverage thanks to new Partners:

In those areas where the FIRMS coverage is weak or absent, RFBs are invited to interact with the FIRMS Secretariat in order to expand the FIRMS data coverage, through development and validation of inventories and generation of reports (fact sheets) on status and trends. Such activity can build on the capacity building experience matured through the work done with CECAF, RECOFI, SWIOFC (i.e. linkage with WioFish fisheries inventory through the Chimaera portal) and more recently with NASCO and WECAFC.

During 2015 and 2016, capacity building is already planned and partially secured for WECAFC and BOBLME through their extra-budgetary resources for the development of inventories and consolidation of data contribution workflow and framework.

The South Pacific Ocean represents a new potential area for expansion of data coverage, with SPRFMO's and CPPS' expressed interest.

Improving reporting timeliness:

Some partners (CCAMLR, GFCM, ICES and IOTC) have expressed the need of streamlining the process of data contribution for reducing the workload, and improving the reporting timeliness. Progress is being made both by the Secretariat and these partners to explore new technologies and adopt new strategies. If solutions are feasible, the Secretariat will adapt the capacities of FIRMS to enable such streamlining.

The most promising perspective lay with the new ICES web-services; the data mining capacities experimented with the Chimaera portal could be extended to CCAMLR and NAFO in the framework of the BlueBRIDGE project.

Other areas of development will depend upon the intentions of the existing partners and the newly appointed observer organizations.

## **8.2 Renewal of the FIRMS user interface**

A significant objective for FSC10 will be to release a new user interface.

So far FIRMS managed to consolidate a big amount of data organized in the two original stocks and fisheries modules in a stable and well-structured way and accessed through specific search interfaces.

FSC8 stressed the need to respond to [target audience](#) expectations, and more specific directions were given by the two following eTWGs:

- eTWG 4.2 (July 2014) indicated that the overall site structure is still considered satisfactory and it was suggested that the renewal should be more focused on "layout design" and new "user oriented interfaces";
- eTWG 4.4 (February 2015) examined options for a map viewer and called for more appealing ways of giving access and consuming the FIRMS content, adapted to various users perspectives.

If endorsed by FSC9, this objective will imply the participation of the FIRMS partners in defining further requirements, and will have to be carefully planned with iterative steps so to remain within limited budget which the FIRMS Secretariat can dedicate.

In this regard, the TWG4 had dedicated sessions which will be further tackled during the next intersessional period if agreed by FSC9.

## **8.3 Requirements for the Global record of stocks and fisheries**

A FIRMS face-to-face Technical Working Group is proposed for discussing the detailed requirements of the Global record of stocks and fisheries. This global record requires building a logic for assignment of global unique identifiers, to assess the conditions for sharing and federating stocks and fisheries records among various sources, and to define the services which the global record should provide. The stakeholders of the various data sources considered for the Global record will be invited to attend this TWG. Implementation of the Global record according to the recommendations of the TWG will depend on the availability of extra budgetary funding. The BlueBRIDGE project, if selected by EU, will provide such funding support during 2016-2017.

## **8.4 Promotion of FIRMS**

Depending on the outcome of FSC9 discussions, different strategies will be adopted for FIRMS promotion.

Priorities agreed in the past sessions were the following:

- to seek participation of more RFBs;

- to adopt a communication plan shared by FIRMS Partners;
- to promote links to the FIRMS website from national agencies websites;
- to increase the dissemination of FIRMS fact sheets from Partners' website;
- to communicate broadly on FIRMS synoptic views on status and trends;
- to communicate on FIRMS progress at Partners' meetings;
- to report on FIRMS progress at COFI and to organize a side event for raising awareness of the ongoing activities.

FIRMS could benefit from a strengthened communication capacity at FAO including through social media coverage (Tweeter). Partners are invited to suggest how a communication plan using Tweeter could amplify awareness of FIRMS and its progress.

**Annex 1 - Status of implementation of FSC8 recommendations – February 2014**

	Done
	In progress
	Not yet tackled

	Decisions	Status of implementation
<b>FIRMS membership (Agenda item 3) - Review of new prospective Partners (Agenda Item 3b)</b>	FSC8/D3.1 - The FIRMS Secretariat will re-contact CPPS, and follow-up with the prospect organizations and initiatives listed above	
	FSC8/D3.2 - FIRMS Partners will promote partnership with FIRMS when meeting other regional organizations	
<b>Review of Annex 2 (Agenda item 4) - Proposed modifications by existing Partners (Agenda item 4b)</b>	FSC8/D4.1 - The FIRMS Secretariat will inform the FIRMS Partners when the annexes of CECAF, SWIOFC and RECOFI will be finalized	
<b>Review of FIRMS activities during the intersession (Agenda item 5)</b>	FSC8/D5.1 - Thematic and regional pages are valuable and partners are encouraged to suggest more	
	FSC8/D5.2 - Web-trends should be compiled striving to enhance the indicators used with comparators	
	FSC8/D5.3 - Efforts should be made both by FIRMS Secretariat and partners to identify extra-budgetary resources	
	FSC8/D5.4 - The FIRMS Secretariat will continue its collaboration with other regional organizations or projects including WECAFC, and SWIOFC/SmartFish/WIOFish	
	FSC8/D5.5 - All Partners should continue with outreach at every opportunity with the development of a communications toolbox available in the FIRMS Wiki	
	FSC8/D5.6 - BCC will add a link to FIRMS from its website	

<p><b>Report of virtual Technical Working Group 3 (Agenda item 6) - TWG recommendations for final endorsement of FSC8 (Agenda item 6b)/Thematic page Deep seas</b></p>	<p>FSC8/D6.1 - The definition of what constitutes a deep sea species should be left to the RFB i.e. a tick box – is it deep sea, yes or no. In that way a species in a particular part of the world is identified to appear on the deep sea thematic page. The default contents/view of the deep sea page would be based on a partner-defined list of deep sea species, different among areas</p>	
	<p>FSC8/D6.2 - The FIRMS Secretariat will collect from the FIRMS partners the list of species considered as Deep seas, together with their min and max range, will propose an implementation model and once cleared by the TWG will implement it</p>	
	<p>FSC8/D6.3 - The FIRMS Secretariat will further work on the development of the Deep Seas thematic page according to the above decisions and further guidance from TWG</p>	
<p><b>Report of virtual Technical Working Group 3 (Agenda item 6) - TWG recommendations for final endorsement of FSC8 (Agenda item 6b)/Further development of Thematic pages</b></p>	<p>FSC8/D6.4 - ICCAT will continue to coordinate the development of the Tuna thematic page and promote it among the Tuna network</p>	
	<p>FSC8/D6.5 - FIRMS Secretariat will continue to coordinate the development of the High Seas Deep Seas page and promote it among the Deep Seas network</p>	
	<p>FSC8/D6.6 - NAFO will coordinate the design of a North Atlantic page in close consultation with the FIRMS Secretariat</p>	
	<p>FSC8/D6.7 - Partners are to consider and identify possible theme pages. This will be assisted by the FIRMS Secretariat which will further consolidate the table presented in Annex 3 through consultation with missing partners. Themes</p>	

	gathering enough interest and a leader will generate a small TWG which will work by web conferencing for developing the design	
<p><b>Report of virtual Technical Working Group 3 (Agenda item 6) - TWG recommendations for final endorsement of FSC8 (Agenda item 6b)/Fishery life cycle and monitoring period</b></p>	FSC8/D6.8 - The closed fisheries should be searchable, but no reporting year should be displayed neither in the search result list nor in the header of the fact sheet. The ancestor Marine resources should not be searchable, but should be accessible from their searchable descendant. Layout artifacts should allow to well distinguish these “closed” and “ancestor” cases from the current fact sheets	
	FSC8/D6.9 - The FIRMS Secretariat will tentatively introduce the difference between Lapsed and Closed fisheries in the data dictionary	
	FSC8/D6.10 - The FIRMS Secretariat will implement those rules and ask the TWG to validate the proposed layout	
<p><b>Report of virtual Technical Working Group 3 (Agenda item 6) - TWG recommendations for final endorsement of FSC8 (Agenda item 6b)/Reporting year</b></p>	FSC8/D6.11 - Reporting year will be used in place of Reference year for differentiating observations and for the display of the year value in the fact sheet. Reference year, semantically part of the assessment section, will be optional and will be displayed less prominently. The Secretariat will implement the new rules in close coordination with the Partners. Past observations will still display both values although properly switched	
<p><b>Report of virtual Technical Working Group 3 (Agenda item 6) - TWG recommendations for final endorsement of FSC8 (Agenda item 6b)/Mapping applications</b></p>	FSC8/D6.12 - FIRMS Secretariat will continue developing the FIRMS mapping applications involving the TWG as required	

<p><b>Report of virtual Technical Working Group 3 (Agenda item 6) - TWG recommendations for final endorsement of FSC8 (Agenda item 6b)/Assessment models and uncertainty</b></p>	<p>FSC8/D6.13 - The current data model for empirical approach and uncertainty can be applied at regional level upon Partners' choices. Partners are invited to make more explicit their rules which will be compiled by the FIRMS Secretariat</p>	
	<p>FSC8/D6.14 - ICCAT and ICES will keep inform the FIRMS Secretariat and TWG on the MSE WG and SISAM results.</p>	
<p><b>Review of strategic aspects - enabling more timely information, broadening geographic/thematic coverage, target audience/communication and partnerships (agenda item 7)/Standard protocol for involvement of nations</b></p>	<p>FSC8/D7.1 - The standard protocol addressing the involvement of Nations through RFBs is adopted by FSC as a reference, which will be further tested and adjusted through new initiatives</p>	
	<p>FSC8/D7.2 A final version of this standard protocol will be prepared by the FIRMS Secretariat taking into account the above comments, and the advice of FAO's legal office regarding intellectual property and responsibilities; this final version will be submitted to the Partners for approval</p>	
<p><b>Review of strategic aspects - enabling more timely information, broadening geographic/thematic coverage, target audience/communication and partnerships (agenda item 7)/Partners plans/experience regarding reporting workflow</b></p>	<p>FSC8/D7.3 - Progress in the above mentioned initiatives will be reported by the concerned Partners and the FIRMS Secretariat when key results can be shared. Partners are encouraged to share information on the approaches presented</p>	
<p><b>Review of strategic aspects - enabling more timely information, broadening geographic/thematic</b></p>	<p>FSC8/D7.4 - This being the first exposure to such request, no decision was expected. FAO will continue to be part of the FisheriesWiki Advisory council and will convey FIRMS partners views. Eventual further</p>	<p>N.A.</p>

<p><b>coverage, target audience/communication and partnerships (agenda item 7)/Interest expressed by NGOs on the use of FIRMS information</b></p>	<p>proposals for collaboration will have to be examined by the FIRMS partners and green light obtained from FSC before implementation</p>	
	<p>FSC8/D7.5 - Copyrights and licensing issues should be sorted out first. Partners will provide this information which will be compiled in the FIRMS Wiki, and the FIRMS Secretariat will review the type of licensing solution which could be applied in the FIRMS context and share the results with the TWG for recommendations</p>	
<p><b>Review of strategic aspects - enabling more timely information, broadening geographic/thematic coverage, target audience/communication and partnerships (agenda item 7)/FIRMS services on fisheries management information</b></p>	<p>FSC8/D7.6 - A TWG will be convened to review and standardize definitions that relate to various Management concepts, and in particular the measures, and to review Fisheries titles naming conventions as they relate to Management</p>	
	<p>FSC8/D7.7 - It was proposed that FIRMS do further exploration with the help of other RFBs in ways to integrate the socio-economic information</p>	
<p><b>Review of strategic aspects - enabling more timely information, broadening geographic/thematic coverage, target audience/communication and partnerships (agenda item 7)/FIRMS Communication strategy</b></p>	<p>FSC8/D7.8 - It was decided to change the FIRMS name to: Fisheries and Resources Monitoring System The FIRMS Secretariat will implement this change as required</p>	
	<p>FSC8/D7.9 - During the intersession, proposed communication messages will be reviewed and fine tuned</p>	
	<p>FSC8/D7.10 - A Management thematic page will be added to the list of potential thematic pages</p>	
	<p>FSC8/D7.11 - A request for a proposal for the display of state and trends descriptors will be made to the TWG</p>	
	<p>FSC8/D7.12 - A few improvements for enhancing partners visibility will be made in</p>	

	the fact sheets	
<b>FIRMS Information Management Policy (IMP)</b>	FSC8/D8.1 - The updated IMP document can be made available through the FIRMS web site replacing the current one	
	FSC8/D8.2 - Capability to produce pdf output from fact sheets should be instituted	
<b>Planning for the next session of FSC (FSC9)</b>	FSC8/D10.1 - An online questionnaire will be circulated to determine exact timing of the meeting	
<b>Other business</b>	The Chairperson will send on behalf of the partnership a message to FAO/FI ADG for suggesting to highly take into account FIRMS in occasion of the allocation of regular programme or project funds considering the ongoing amount of work in FIRMS and its recognized importance among FIRMS Partners.	
	FSC8/D11.1 - Ms. Barb Marshall will prepare this letter shortly after FSC8	

## Annex 2 - Status of implementation of FSC7 recommendations – January 2013

completed	on-going	not yet started
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FSC7 recommendations	Implementation status
Encourage WCPFC and other institutions to join the partnership or changing their status in order to expand the FIRMS coverage	<p><b>SPC, WCPFC still pending</b></p> <p><b>BCC decided to become observer</b></p> <p><b>NAMMCO is an Observer</b></p> <p><b>DG-MARE/Socio-eco unit replaced Eurostat for re presenting EU</b></p> <p><b>SPRFMO as Observer</b></p> <p><b>RECOFI will make decision on its membership at its 2013 Commission meeting</b></p> <p><b>NASCO will present membership in FIRMS at its Council 2013 meeting</b></p>
Partners with changes in the nature of their contributions are requested to provide draft revision to their Annex II	<p><b>Done for ICCAT, NAFO</b></p> <p><b>Done for FAO, including CECAF, SWIOFC, RECOFI</b></p> <p><b>SEAFDEC is pending</b></p>
Populating FIRMS with new data	<b>Done for SWIOFC, done for CECAF, partially done for GFCM; partially done for FAO Review of the state of world marine fishery resources; coming soon: RECOFI fishing activities,</b>
Creation of a new thematic page was proposed for the North Atlantic to express the science to management decision making process, among NAFO, NEAFC, ICES, DG MARE and ICCAT (with reference with Agenda Item 8c). NAFO will lead the discussion.	<b>Design of North Atlantic thematic page is in progress (ongoing discussions lead by NAFO)</b>
Update of existing thematic pages	<p><b>Enhanced accuracy of the search results implemented in the Tuna thematic page</b></p> <p><b>Ongoing discussion to better define depth ranges for "FIRMS on deep sea (high seas) resources"</b></p>
Removing "Demersal" in the title to avoid potential confusion with the definition. The high-sea fisheries for this page would include non-demersal species found in depths greater than 200 meters such as mackerel or deep sea squid.	<b>Done, inclusion of other species is pending upon agreement on final definition of depth ranges.</b>
Publication of data coverage maps should be done cautiously, with iterative steps	<b>In progress</b>
<b>The resources-to-fisheries continuum:</b> starting a virtual merging, of the two modules marine resources and fisheries with a joint search interface should be accessible from the home page for retrieving both Marine Resource and Fishery fact sheets.	<p><b>A unique search interface has been set-up from the home page in the form of a query map.</b></p> <p><b>Another facility (a full text search field) is still to be implemented. The virtual merging of the two modules has not been yet tackled. This is a significant work for which resources need to be identified.</b></p> <p><b>Some progress made as part of the SmartFish project</b></p> <p>More information on the continuum at :  <a href="http://figisapps.fao.org/FIGISwiki/index.php/FIRMS_Data_Models">http://figisapps.fao.org/FIGISwiki/index.php/FIRMS_Data_Models</a> (login required)</p>
Inclusion of Monitoring cycles of Marine resources section in the Standards section of the IMP, as part of the Marine resources data dictionary	<b>Done</b>
Inclusion of Fishery life cycle of Fisheries section in the Standards section of the IMP, as part of the Fisheries data dictionary	<b>Done</b>
Revision of some comments received during the FSC7 (RECOFI feedback) on the use of some terminology to be evaluated and if accepted their	<b>Stored in Wiki, waiting for feedback</b> <a href="http://figisapps.fao.org/FIGISwiki/index.php/Talk:FIRMS_Inventory_Guidelines_and_Templates">http://figisapps.fao.org/FIGISwiki/index.php/Talk:FIRMS_Inventory_Guidelines_and_Templates</a>

integration in the Guidelines section of the IMP.	
<p><b>Quality assurance related to information on resources/stocks</b></p> <p><b>Assessments:</b> The TWG will be requested to develop a standard vocabulary for Trends as a result of Fisheries data, as well as for qualitative fishery resources assessment methods. Mr.Yimin Ye has agreed to lead this task in collaboration with ICCAT.</p>	Work in progress in the TWG. No agreement yet on a standard
The Secretariat will propose an enhanced data structure alignment between the resource and fishery data modules to better cater for the continuum.	Not done
Investigating reference year identification mechanisms and proposing solutions. Production of alternative scenarios for displaying the reference year within the fact sheets. Provision of a disclaimer and/or definitions of reporting year and reference year.	Work in progress within the TWG, and an agenda item of FSC8. References <a href="http://figisapps.fao.org/FIGISwiki/index.php/Talk:FIRMS_Data_Models">http://figisapps.fao.org/FIGISwiki/index.php/Talk:FIRMS_Data_Models</a> (login required)
Removal of the year in the list of fact sheets generated by the search engine. It would remain visible in the actual fact sheet.	Not yet tackled, waiting for final decision on the issue on reference/reporting year.
Contributions by Partners for updating FIRMS web-based sections of the Global review. Consequently, the Secretariat will modify the Global review fact sheets by integrating live links to the more detailed RFBs' fact sheets	The fact sheets implemented based on the latest FAO 2011 publication "Review of the state of world marine fishery resources" include these dynamic links
<p><b>Reporting on national fisheries and resources:</b></p> <p>The Secretariat will develop standard protocols addressing the involvement of Nations through RFBs, for review by the TWG</p> <p>Under the condition that additional funding can be mobilized, the Secretariat will consider the possibility of another training workshop in the RECOFI region, in close collaboration with the RECOFI Secretariat</p>	<p>Done, will be presented at FSC8</p> <p>Funding not identified, workshop not really deemed necessary at this stage</p>
<p><b>Reporting on fisheries management:</b></p> <p>The Secretariat will coordinate among the concerned actors the development of a thematic page on the theme "science to management process in the North Atlantic". NAFO will the lead in a substantive discussion.</p>	NAFO should make a proposal at FSC8
In the NEAFC's fact sheet where reference is made to ICES scientific advice, the terminology should be changed to "Assessment advice provided by ICES".	Done
In the fishery fact sheets on management a standard section "Long term plans" should be added in the Management fact sheets template.	Not yet tackled
<p><b>FIRMS role regarding reporting on socio-economic status of fisheries:</b></p> <p>Upon DG MARE's confirmation of its intended contribution during 2012, two or three case studies regarding socio-economic data will be developed under the coordination of the Secretariat, with the participation of ICCAT, ICES, NEAFC and possibly CECAF.</p>	Work in progress, two case studies were provided and an exchange is ongoing with DG-MARE
<p><b>Practical steps towards NatFIRMS:</b></p> <p>NatFIRMS information could be accessed and disseminated through the FAO's FACP programme: links to countries with relevant resources and fisheries information would be listed. From the FIRMS website, an access to NatFIRMS information should be granted following an informational hierarchical process by which users are suggested to further link to NatFIRMS only as second search iteration, after getting a first chance to review FIRMS information</p>	<p>Not implemented yet.</p> <p>Test Fishery Fact sheets for the Pacific island states might be initiated</p>

<p><b>FIRMS communication strategy:</b></p> <p>A communication strategy will be iteratively developed through the FIRMS Wiki, and FIRMS partners will be invited to contribute.</p> <p>The FIRMS home page should be made more dynamic and informative from the perspective of users expectations.</p> <p>Partners are encouraged to actively contribute to FIRMS outreach within their own constituency, and the Secretariat will assist this process by making available a toolbox of promotional material.</p>	<p>The FIRMS communication strategy wiki page has been deeply expanded for presentation at FSC8 and feedback from partners towards a communication plan. <a href="http://firmsapps.fao.org/FICISwiki/index.php/FIRMS_communication_strategy">http://firmsapps.fao.org/FICISwiki/index.php/FIRMS_communication_strategy</a> (login required) and <a href="#">FIRMS FSC8 2013.4</a>. Communication material not developed further</p> <p>Parallel reflexion takes place in SmartFish and might feed into FIRMS</p> <p>Most partners have drawn links to FIRMS from their website, except IOTC, NEAFC and DG MARE</p> <p>NAFO has promoted FIRMS within its constituency; SPC has communicated with WCPFC on the FIRMS invitation to become a member</p>
<p>Efforts should be made both by Secretariat and partners to identify extra-budgetary resources.</p>	<p>EBF – FAO applied to next JPN TF for support to FIRMS – formulates a FP7 GEODIVA project including technological and capacity building support to FIRMS - no results yet</p>

**Annex 3: Web trends statistics for FIRMS over the period 2007-2014**

Accessible at [ftp://ftp.fao.org/FI/DOCUMENT/FIGIS\\_FIRMS/2015/inf8e.pdf](ftp://ftp.fao.org/FI/DOCUMENT/FIGIS_FIRMS/2015/inf8e.pdf)