

**FIRMS Steering Committee Meeting****Eighth Session****Rome, Italy, 4-5 and 8 February 2013****FINAL REPORT****Author: FIRMS chairperson, with inputs from SC members****1. OPENING OF THE SESSION AND WELCOME (AGENDA ITEM 1)**

1. The Eighth Session of the FIRMS Steering Committee (FSC8) was held at FAO headquarters in Rome, Italy 4-5 and 8 February 2013. The meeting was opened by Mr. Marc Taconet, FIRMS Secretary, at 0900 hours on Wednesday 4 February 2013. Mr. Taconet introduced Mr. Indroyono Soesilo, recently appointed FAO FIR Director. Mr. Soesilo stressed the importance of FIRMS as a tool for communicating information on global fishery resources, a very useful platform for outreach to stakeholders. He looks forward to a successful outcome from this meeting.
2. Mr. Taconet also introduced Mr. Richard Grainger (Chief FAO Fisheries Statistics and Information Service) who indicated his satisfaction with the development of FIRMS including growth of the partnerships. He pointed out that this meeting should focus its work on future developments with careful consideration on FIRMS web usage and target audience, and pointed out the need to keep FIRMS' site information up to date (through FIRMS Secretariat and partnership cooperation and commitments). He stressed the need to ensure the sustainability of the project, noting that FAO will continue to support FIRMS and hoping that the partners will do the same.
3. Mr. Michael Hinton, the on-going Chairperson, was not able to attend the meeting. In the absence of the Chairperson and with his consent, Ms. Barbara Marshall, the current vice-Chairperson was appointed as acting Chairperson. She thanked the FIRMS Secretariat for organizing the meeting and the Partners and their member States for their contributions and commitment. She pointed out that FIRMS now has operational foundations and that the efforts should shift towards making the best of the available and potential information.

4. Eight participating FIRMS Partners were:

- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
- European Union, represented by DG MARE, and with the presence of Eurostat
- Food and Agriculture Organization of the United Nations (FAO), including two FAO RFBs associate partners: CECAF and RECOFI
- General Fisheries Commission for the Mediterranean (GFCM)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- International Council for the Exploration of the Sea (ICES)
- Northwest Atlantic Fisheries Organization (NAFO)
- South East Atlantic Fisheries Organization (SEAFO)

The Benguela Current Commission (BCC), which recently applied as observer Organization, was also represented.

The following persons were also present as invited participants: Ms. Cassandra de Young and Ms. Nicole Franz, fishery planning analysts (FAO/FIPI). Ms. Bernadine Everett (WIOFish), and Mr. Jack Whalen (Sustainable Fisheries Partnerships).

The list of 23 participants is found in Appendix 1.

Partners not present:

- Commission for the Conservation of Southern Bluefin Tuna (CCSBT)
- Inter-American Tropical Tuna Commission (IATTC)
- Indian Ocean Tuna Commission (IOTC)
- North East Atlantic Fisheries Commission (NEAFC) Southeast Asian Fisheries Development Center (SEAFDEC)

## **2. ADOPTION OF THE AGENDA (AGENDA ITEM 2)**

5. The agenda was reviewed and adopted. It was noted that items 3-6 are standard items dealing mainly with previous work, while items 7-10, are forward looking. With respect to the FIRMS cycle, the Chairperson highlighted the need to move forward by taking the necessary steps to more effectively share what has been compiled, and by providing products that are user-friendly and accessible. Some of these aspects will be elaborated under item 7.

## **3. FIRMS MEMBERSHIP (AGENDA ITEM 3)**

### **Progress on the Development of FIRMS partnerships (Agenda item 3a)**

6. FIRMS membership numbers remain at 13 partners (<http://firms.fao.org/firms/about/en>) and steps have been taken to expand the membership. New prospective partners were reviewed under item 3b.

**A Review of new prospective Partners (Agenda Item 3b)**

7. Benguela Current Commission (BCC) recently applied to join the FIRMS partnership as Observer. Mr. Hashali Hamukuaya (BCC) noted that they are presently setting up a holistic oceans' database to support an information system on the State of the environment, that includes fisheries information, and therefore have applied for observer status. Faced with the need to deal with ecosystem issues and fisheries sharing (shared resources), member states of RFMOs must recognize the importance of FIRMS as a framework for sharing fisheries information. He also noted that the ecosystem is shared with SEAFO.
8. The RECOFI representative delivered a brief history of RECOFI's involvement in FIRMS from 2011. RECOFI will examine a possible application as a FIRMS full partner at its Commission meeting in May 2013.
9. It was noted that the focus for prospective FIRMS partners should be on new or relatively new fisheries commissions and some possibilities were discussed, in addition to RECOFI (point 9 above).
10. The Chairperson and FIRMS Secretary both stressed the importance of outreach, requesting input from current Partners in regard to prospective members. In this regard, a letter sent in 2011 (with a reminder in 2012) to eight prospective partners had produced some effect judging from the response at FSC7 and FSC8.
11. Secretariats of NAMMCO and NASCO had confirmed with the FIRMS Secretariat their Observer status and willingness to review the accession to a possible membership at their next respective Commission meetings. SPRFMO, a newly formed organization present at FSC7, expressed potential interest and would consider joining FIRMS when better settled. SIODFA also newly ratified would be another potential Partner.
12. Noticeably, one geographic area with little or no participation in the FIRMS process is Central and South America. The Western Central Atlantic Fisheries Commission (WECAFC), a FAO associated partner, recently suggested the possibility of a regional workshop, similar to what was done for CECAF and RECOFI with the goal to encourage nations' participation in FIRMS. FSC8 also agreed to contact the Permanent Commission for the South Pacific (CPPS) and encourage participation in FIRMS under its Observer status.
13. Mr. Taconet further noted that Mr. Mike Batty (Secretariat of the Pacific Community SPC) was tasked by FSC7 to approach the Western and Central Pacific Fisheries Commission (WCPFC) to convey partnership possibilities and this is presently being considered. In relation to these discussions, Ms. Pallares (ICCAT) also indicated that the Partner's obligation may pose some difficulty to participation, and that the possibility of a biannual rather than an annual meeting was evoked. The Chairperson also suggested that a FIRMS Steering Committee meeting held in a particular region might be a way to attract participation from prospective partners.
14. Ms Everett, Regional Coordinator WIOFish, delivered a brief review of this network initiated in 1999 to collect holistic information on small scale fisheries in the Western Indian Ocean. The WIOFish database now encompasses a comprehensive inventory of

269 artisanal and industrial fisheries and their profile covering all countries (except Somalia) of the South West Indian Ocean. Mr. Taconet noted that SWIOFC-SC had recommended in 2009 that FIRMS should collaborate with WIOFish and build linkages with this regional network, and that Ms. Everett's presence at this meeting was an evidence of this initiated collaboration. Mr. Ye also recommended that FIRMS should ensure linkage with another relevant FAO database initiative recently decided in Kenya.

## **Decisions**

- The FIRMS Secretariat will re-contact CPPS, and follow-up with the prospect organizations and initiatives listed above (FSC8/D3.1)
- FIRMS Partners will promote partnership with FIRMS when meeting other regional organizations (FSC8/D3.2)

## **4. REVIEW OF ANNEX 2 (AGENDA ITEM 4)**

### **Proposed information contributions of new Partner(s) (Agenda item 4a)**

15. DG MARE has replaced Eurostat in FIRMS since FSC7 and indicated that it will contribute its Annual Economic Report of EU fleets, as per the Annex2 originally set out by Eurostat. Agenda item 7e shows that progress was made towards this perspective contribution through the production of case studies.

### **Proposed modifications by existing Partners (Agenda item 4b)**

16. Ms. Barbara Marshall (NAFO) indicated that NAFO's revision to Annex 2 was necessary to include contributions to the Fisheries Module. She added that the NAFO experience had been an effortless process, accepted without issue by the NAFO General Council. She encouraged others to undertake necessary revisions while involving their constituency toward documenting contributions to FIRMS.
17. Regarding FAO, Mr. Taconet noted that its old Annex 2 had to be broken down so to take into account the decisions of the FAO RFBs and their respective committees regarding information contributions. FAO/Fl's Annex 2 has been slightly modified to introduce a reference to the new related Annexes for CECAF, SWIOFC, and RECOFI (WECAFC would follow).
18. In the absence of a SWIOFC representative, Mr. Taconet informed that the draft Annex 2 is under the review of SWIOFC's SC chair.
19. Mr. Kossi Sedzro (CECAF) indicated that he had shared the draft new Annex 2 with his CECAF colleagues and that he will provide a final version as soon as possible.
20. Mr. Al Jabri Yaqoob Bin Salim noted that RECOFI's Annex 2 will be discussed at their 7th Session and that more will be known at the next commission meeting.
21. Mr. Taconet noted that CECAF, SWIOFC, RECOFI, as FAO associated partners, have only one voice (one vote) within the FIRMS process. RECOFI may consider becoming a full (independent) partner in the future.

22. Mr. Taconet summed up the partnership process – the decision to apply as FIRMS Partner should be made by the potential partner only when it can confirm commitment to contribute data and to participate at FIRMS meetings at its own costs. However, it was pointed out that the member states themselves as the original source for all data contributions must be committed to the FIRMS process.
23. Mr. George Campanis (SEAFO) briefly described their new contributions, including jurisdictional and management information, new species and consistencies between resources and fisheries. These additions were however encompassed in the existing Annex2. He also asked how FIRMS handles input for straddling stocks (an issue common to most partners). Mr. Taconet indicated that this agenda item aims at identifying potential conflicts and that these must be resolved among the concerned RFBs, with the understanding that FIRMS also offers joint ownership possibilities, and that national reporting is coordinated by the regional bodies under the standard protocol which FIRMS is setting-up (see agenda item 7a).
24. Mr. Hamukuaya (BCC) said that contributions will be done officially by Member states according to a step wise approach, and that his presence at this FSC meeting was to understand how this would be expected to be done.

**Decisions:**

- The FIRMS Secretariat will inform the FIRMS Partners when the annexes of CECAF, SWIOFC and RECOFI will be finalized (FSC8/D4.1)

**5. REVIEW OF FIRMS ACTIVITIES DURING THE INTERSESSION (AGENDA ITEM 5, CF DOC. FIRMS FSC8/2013/2A-N)**

**Report on intersession activities - Secretariat Report (Agenda item 5a)**

25. Mr Marc Taconet, Mr. Aureliano Gentile and Ms. Elena Balestri presented a report on FIRMS Secretariat activities carried out during the intersession including marine resource and fishery modules, database content, fact sheet layout improvements, coverage maps, web trends, applications development, training, promotional activities, secretariat resources in support of FIRMS, difficulties encountered and planned activities (FSC8/2013/2a). Some of these points were addressed in more details as part of the following sub-items.

**Marine Resource and Fishery modules - progress on populating the database (Agenda item 5c1)**

26. Table 1 of Doc. FIRMS FSC8/2013/2 illustrates FIRMS Marine Resources and Fisheries inventoried units, Reference Observations (RO) and number of fact sheets highlighting updates during the intersession.
27. The Marine Resource Inventory now totals 1244, with the largest contributions from ICES (286), WECAFC (264) and CECAF (217). Fact sheets are published for about 50% of these resources.

28. The Fishery Module totals 645 units. The large majority of contributions to the inventory are from CECAF (281) and WECAFC (233), however many WECAFC components are not yet validated or published.

29. Developments on Marine Resource Module inventories and fact sheets for the period Dec. 2011 to Jan. 2013 are as follows:

- GFCM: 14 new fact sheets have been produced, 13 are in progress. New resources are going to be added to the inventory.
- IOTC: a revision of the structure of the inventory is in progress including the definition of mapping rules between IOTC state and trend indicators and the FIRMS standard ones.
- ICES: updates of reference observations and fact sheets based on the structure of new ICES Advice report, and addition of 93 new stocks.

FAO – associated Partners

- SWIOFC: 117 Reference observation and related fact sheets were published
- CECAF: a revision of the section “Demersal resources Southern area of Eastern Central Atlantic “ is in progress
- RECOFI: Qatar and Oman delivered a national contribution to the RECOFI Regional marine resources inventory. Saudi Arabia is starting to provide data.

30. Developments on the Fishery Module inventories and fact sheets for the period Dec. 2011 to Jan. 2013 were as follows:

- NAFO: 4 new Fishery Management units fact sheet were published.
- NEAFC: A new Word template including the new management measures’ structure was provided. New data contribution is in progress.
- SEAFDEC: 2 fact sheets on sea cucumber fisheries were finalized. Other data contribution is in progress following the provision of an ad hoc Word template.
- SEAFO: one new fishery fact sheet describing the SEAFO fishery management system, developed in relation with an on-going revision of the Marine resources inventory.

FAO – associated Partners

- CECAF: new fisheries fact sheets were produced and published for Togo, Guinea, and final clearance is pending for publishing Morocco and Spain.
- RECOFI: National fisheries inventories validated for Bahrain and Iran and draft fact sheets produced accordingly. Oman and Qatar are nearly finalized, Saudi Arabia just started.
- SWIOFC: a collaboration has been engaged with the WIOFish network, under the SmartFish project.

**Fact sheets layout/template improvements (Agenda item 5c2)**

31. Fact sheet production and improvements which were many, were presented and reviewed: Resource monitoring period, Assessment approach, Fishery life cycle, Management measures, Related fisheries.

**Home page, thematic pages and web-trends - communicating better (Agenda item 5c)**

32. In terms of web trends, number of visits and pages continued to increase during the monitored period, Jan, 2011 to Aug. 2012. 41% of visitors access FIRMS through a search engine, 39% through referral sites. Most of the hits originated in the USA, Italy (FAO and GFCM), the UK France and Canada but this may relate in part to server location. The most visited pages beside the home page were the tuna fact sheets together with the search entry pages, also noting increasing interest in fisheries information.
33. There was some discussion around more refined methods for tracking hits that might better reflect site usage including with meaningful comparators, for example inclusion of unique IP, number of hits per module, or per fact sheet. The traffic originated from Africa is notably low and this could be partially explained by servers used by African countries being located in developed countries (WIOFish server is one such example).
34. Mr. Taconet pointed out that FIRMS site is not yet well known (unlike Fishbase) particularly in developing countries and outreach for example in the form of newsletters, mailing and links in other sites should become a priority. Mr. Hamukuaya offered to put a link on the BCC website. Mr. Al Jabri asked if the site might be made available in other languages. FIRMS is technically multilingual but the motivation to add a new language comes with the language in which contributions are made. It was noted that Spanish may be considered for specific fisheries in future and could be added for at least the gateway pages.
35. Mr. Al Jabri enquired why there was nothing on the site from the RECOFI area. Mr. Taconet indicated that it was still unpublished and awaits a green light from RECOFI.
36. The development of applications was reviewed:
  - Word/Excel-to-XML converter tool: Word converter upgraded ; Excel converter fully available and operational
  - Content Management System (CMS): CMS was slightly improved in terms of performance due to the installation of the new FIGIS servers
  - Development of mapping application: Mock-up of a mapping interface for visualizing the elements of the table of the High Seas Deep Seas thematic page were made available and discussed during the TWG3.2 e-meeting (see [FIRMS Wiki Documentation](#)).
37. The **training** during the intersession was reviewed:
  - ICES training: three days training on the utilization of the Word-to-XML converter tool applied on the new template of the ICES Advice 2012.
  - The FIRMS Secretariat ensured continuing remote technical support to partners.
  - The promotional activities during the intersession were presented:
  - NAFO participated to the “Science & Sustainability Forum” organized by Oceans Trust;
  - FIRMS Secretariat was invited to be one of 12 members serving in the Scientific Advisory Group of FisheriesWiki;

- SPC reported to the FIRMS Secretariat its FSC7 follow-up outreach activities with WCPFC, inviting WCPFC to become a partner;
  - FIRMS participates in the SmartFISH project and collaborates with other networks of the South West Indian Ocean (WIOFish and StatBase) for the development of an harmonized regional information system;
  - The use of FIRMS/WECAFC information and its potential offering was promoted in the context of the Caribbean Large Marine Ecosystem Project;
  - The FIRMS Secretariat has contacted the BOBLME (Bay of Bengal Large Marine Ecosystem) project and invited to develop some inventory products.
  - Promotional material (FIRMS brochures and poster) were distributed in occasion of the the14th International Frozen Seafood Products Exhibition - CONXEMAR 2012
  - FIRMS Secretariat attended the Sixth Session of the Working Group on Fisheries Management of RECOFI where FIRMS was discussed.
38. The Chairperson noted the opportunities to collaborate with other entities including WIOFish, SmartFish and StatBase as reflected by the presence of Ms. Bernadine Everett, Regional Coordinator for the WIOFish Project.
39. The **funding support to the FIRMS Secretariat** was reviewed. It was reported that there were no real budgetary constraints during the intersession on both FAO's Regular Programme allotments and Project funding support (essentially a Japanese Trust fund). Presently, 61% of funding is allocated to data submission and training activities, 33% to software development, 7% to marketing, a relatively stable share. In earlier years, a higher proportion of funding went to software development. The FIRMS Secretary expressed concerns regarding the capacity to maintain project funding support during the next years.
40. However, other difficulties were encountered that affected performance. Web servers on which FIRMS is relying upon, were migrated to a higher performance hardware. The server migration caused a new configuration as well as a number of side effects consuming a substantial amount of developers' time and also affecting the FIRMS Secretariat activity. In terms of scheduling, responses from few partners are occasionally quite delayed or absent both in occasion of updating the inventories or producing fact sheets.

**Partner Reports (Agenda item 5d)**

41. Activities carried out by Partners can be found in the Partners Activity Reports (FIRMS FSC8/2013/2a-n). The following Partners reported at the meeting: CCAMLR, CCSBT, ICCAT, ICES, NAFO and SEAFO.
42. CCAMLR reported that they are developing web-based information on marine species, fisheries and fishery resources of the Southern Ocean (in conjunction with their new web site). The new CCAMLR website has a page on collaborations and partnerships in global data related initiatives (<http://www.ccamlr.org/en/data/partnerships>) with links to FIRMS and CWP. A web-based feed is proposed to transfer fishery and resource information to FIRMS.
43. CCSBT indicated that reporting to FIRMS which includes an update of the Southern Bluefin Tuna fact sheet and an update of the agreed data, occurs within 6 months of the

CCSBT Commission meeting. FIRMS systems are tested with each update of the SBT fact sheets, including Workflow Management, Cloning Fact Sheets and editing. Links to FIRMS and the FAO are provided on the CCSBT website.

44. ICCAT continued with the implementation and update of the fact sheets corresponding to the principal tuna, tuna-like and some pelagic sharks stocks under ICCAT mandate. Implementation of FIRMS descriptors for the stocks for which assessment has been conducted during the year following the criteria to map ICCAT stock status results to FIRMS standard descriptors established by the second FIRMS Technical Working Group (TWG) based on the phase plot stock status figure adopted by the Tuna RFMOs. ICCAT actively participates in the revision and actions on FIRMS data model and reference terms for Assessment Section. FIRMS is included as a link in the ICCAT web site. Following the recommendation of the FSC to develop some case studies using the socio-economic data collected by the EU, ICCAT is open to collaborate with DG MARE to elaborate a work plan for the development of a case study. Lacking a response, the development of the case study is still pending.
45. ICES reported on updates of reference observations and fact sheets based on the structure of new ICES Advice report, and significantly, the addition of 93 new stocks. The ICES advice format has changed (moving towards MSY) and the inventory in FIRMS was analysed and revised. During December the list of stocks was updated – now more than 250. A 3 day course was held in October 2012 in FAO HQ to train two persons. The FIRMS team trained them to use Word-to-XML converter tool applied on the new template for the ICES Advice 2012. On that occasion the ICES marine resources inventory was screened, revised and integrated with new stocks. Approximately 150 fact sheets have, at this stage, been updated based on assessments and advice given in 2012. An update to the ICES Marine Resource Word templates for the automatic conversion and revision of mapping ICES headers to FIRMS headers has taken place and the translation table of stock status in ICES advice into FIRMS descriptors has been updated. The ICES website has a page on links <http://www.ices.dk/marineworld/links.asp> giving access to FIRMS.
46. NAFO continues to submit Marine Resource information. In 2012 all submissions are up to date. NAFO has begun submitting Fishery information, 4 Fact Sheets in 2012. NAFO updated its Partnership Agreement Annex 2 to reflect the submission of information to the Fisheries Module. At the FSC7 NAFO agreed to lead the discussion on the deep-sea thematic page. E-mails were sent to various other Partners but discussion was limited and it was generally felt that each organization has its own definitions of “Deep-Sea” and it may not be possible to agree on a standard. As well during FSC7 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. It was agreed that NAFO would lead the discussion. NAFO had developed a poster for its own use and is prepared to introduce this as a jumping off point for future development within FIRMS.
47. In addition to twelve marine resources already being reported by SEAFO, Fishery information using the Jurisdictional thematic approach is now also being reported. In 2012, SEAFOs Scientific Committee developed status reports for five species occurring in the SEAFO Convention Area (CA). Management Units for these stocks were

identified and created within the FIRMS database, and the relevant marine resource information will be reflected in the nearest future..

48. There were no proposed information contributions of new Partner(s).

**Partners' follow-up regarding previous recommendations**

Most of the aspects relevant to this point were already reported in the promotion/outreach section above.

49. In terms of communication, the FIRMS Secretary stressed the importance of outreach, that is a responsibility of the partners as well as the FIRMS Secretariat. This outreach needs to be done at regional meetings and other international fora as was done by NAFO at its Council for clearance of its revised Annex 2, and at the Ocean Trust workshop this past year where Ms. Marshall gave a presentation on FIRMS and its activities. That presentation was well received.

50. As was discussed at the last FSC, the Chairperson suggested a more standard approach to outreach by developing a communications toolbox, posters, brochures PowerPoint presentations, newsletters etc. She suggested that these would best be developed in conjunction with communication experts.

**Decisions:**

- Thematic and regional pages are valuable and partners are encouraged to suggest more (FSC8/D5.1)
- Web-trends should be compiled striving to enhance the indicators used with comparators (FSC8/D5.2)
- Efforts should be made both by FIRMS Secretariat and partners to identify extra-budgetary resources (FSC8/D5.3)
- The FIRMS Secretariat will continue its collaboration with other regional organizations or projects including WECAFC, and SWIOFC/SmartFish/WIOFish (FSC8/D5.4)
- All Partners should continue with outreach at every opportunity with the development of a communications toolbox available in the FIRMS Wiki (FSC8/D5.5)
- BCC will add a link to FIRMS from its website (FSC8/D5.6)

**6. REPORT OF VIRTUAL TECHNICAL WORKING GROUP 3 (AGENDA ITEM 6)**

**Summary report of e-TWG3 (Agenda item 6a)**

51. Mr. Aureliano Gentile and Ms. Elena Balestri presented a review of the work by virtual TWG3 carried out during the intersession on "FIRMS Thematic pages", "Revision of Assessment section", Implementation of "Resources Monitoring Period" and "Fishery Life Cycle", and "Reference year vs. Reporting year".

### **FIRMS Thematic pages: Tuna and tuna fisheries**

52. The revision of lists of Tuna and Tuna-like species is in progress. The page title was updated to “FIRMS on Tuna and Tuna fisheries” and the introductory statement revised. Queries were added to also retrieve tuna fisheries. The implementation of queries based on taxonomic criteria e.g. family is still pending.
53. Regarding the Tuna and Tuna fisheries thematic page, ICCAT noted that the FAO fact sheet on global tuna resources uses a classification of the status of stocks: Non-fully exploited; Fully exploited; and Overexploited which do not match with the criteria adopted by tRFMOs to define the stock status. For tuna, tuna like and other species managed by tRFMOs, stock status is based on two variables: Fishing mortality and Biomass relative to benchmark values (F/FMSY and SSB/SSBMSY). ICCAT will work with other tRFMOs to provide the FIRMS Secretariat with an alternative proposal consistent with the tRFMOs criteria.

### **FIRMS Thematic pages: Deep sea (high seas) resources**

54. A Mock-up of a mapping interface done to better visualize the elements of the table of the High Seas Deep Seas thematic page was presented. The revision of the list of deep seas species is pending, as well as the identification of the criteria for identifying the depth range suitable for deep seas (high seas) resources. However the email discussion which took place on the matter has been compiled in the FIRMS Wiki.
55. The identification of criteria for identifying deep sea species and depth range criteria was discussed at length. It appears that each Partner has its own set of criteria when referring to deep sea species. For example, the protocol for the ICES stocks is to flag which ones are in ICES defined as deepsea species (the ones assessed in WGDEEP) - these are based on agreed species list and not defined by depth. These protocols will be the same for NEAFC and EC. Thus, there was general agreement that definition of what constitutes a deep sea species should be left to the Partner i.e. a tick box in the Marine Resources fact sheet – is it deep sea, yes or no. In that way, where a species in a particular part of the world has been identified it will appear on the deep sea thematic page. A particular species may not be designated for all areas. It was concluded that the default contents/view of the deep sea page would be based on a partner-defined list of deep sea species.
56. Partners would be also be encouraged to provide a depth range (upper and lower depth) for each species where applicable. Depth range will become an entity separate from deep sea. A user defined depth range (choosable pull down) could also be incorporated.
57. A user of the thematic page would initially see the default contents/view, and then have the option to select FIRMS-defined depth ranges, or to specify an actual depth range. This user-defined depth range would select species based on their upper/lower depths.
58. It was asked if it is useful for FSC to agree on a method for determining the upper/lower depth range, e.g. a percentile of fishing depths targeting the species. It was noted that depth max/min, and whether considered deep sea, could be provided by each Partner by species, for implementation at each Marine resource level.

59. FSC8 recommended consideration by Partners of other thematic or regional pages. The development of such pages bear strategic aspects, including enhancing visibility, added value to single partner contribution, and enhancing collaboration among partners to improve consistency on this theme or region. A thematic page can also be understood as a Table of Content of available content.
60. A broad geographic - North Atlantic theme page (ICES, NEAFC, NAFO, DG MARE and ICCAT) was proposed on the theme “science to decision making in fisheries”. There was some discussion that North Atlantic was too large an area and included multiple RFMOs, making it harder to deal with socio-economic aspects. However, it was felt that this should not present a problem. Such a page might be useful to anyone doing research on an Atlantic-wide scale. Another suggested theme was an ecoregion page or perhaps presenting the North Atlantic page in an ecoregion context. Final choice should be driven by available data, in particular during this development phase. The approach applied there could then be generalized to work on any selected region.
61. Other candidate thematic pages were listed, including a shark thematic page, regional pages fostering collaboration among agencies (Mediterranean to Eastern Atlantic; Indian Ocean; Pacific). ... and partners were asked to mention their interest to lead/contribute to the design and development of such thematic page. The resulting table is presented in Annex 3

### **TWG recommendations for final endorsement of FSC8 (Agenda item 6b)**

#### **The Fishery life cycle and monitoring period**

62. The concepts endorsed by FSC7 were implemented in the Excel templates, schema and fact sheets layout for Fisheries and Marine Resources. The outstanding issues identified were:
- Fact sheets layout for closed fisheries and no longer monitored resources must be properly implemented
  - Search results behavior for closed fisheries and no longer monitored marine resources
  - Definitions of rules for assigning end/start year
63. FSC8 agreed that past (archived) data should be accessible (i.e. not removed from the system) but how to indicate status of those dormant data (i.e. closed fishery activity, or the ancestor of split Marine resource) needs to be indicated; there is a need to document events back in time. For example, what happens when a closed fishery reopens. A number of options were discussed for dealing with closed fisheries including text fading, different colouration, symbolic differentiation. The WIOFish coordinator indicated that it is important to specify on the page when the associated fishery has been closed or split, and when it was reopened, a timeline of events. CCAMLR, for example, differentiates between fisheries which have been closed by the Commission and those fisheries which have lapsed because of the loss of commercial interest.

## **On-going issues for FSC8 recommendations (Agenda item 6c)**

### **i. The “Reporting Year” issue**

64. Reporting year vs. Reference year – TWG prepared proposals for handling Reporting year/Reference year. Various options were debated but no agreement was reached by TWG3.
65. TWG3 noted that including the Reference year prominently in the fact sheet can lead the viewer to perceive that the fact sheet is out of date in certain cases. Thus, a different way of displaying the Reference year, less prominently was considered. Four examples were illustrated.
66. TWG3 also considered that replacing Reference year with Reporting year would be more in line with Partners’ conventions in assigning a year to their Assessments, and would provide perception of a more timely output.
67. Mr. Taconet indicated that it is important that the meaning of Reporting year be explicitly described, that it is the year in which the stock/fishery was assessed.
68. Despite this matter being a longstanding issue, there was quick consensus among FSC8 participants for the replacement of Reference year by Reporting year. It should also clearly be specified the period of time for which the advice applies. The Reference year is more relevant at the Biological Assessment topic level and can be optionally provided depending on Partners’ policies.

### **ii. The FIRMS Resources and Fisheries map viewer**

69. A one-year old map interface prototype had been considered by TWG3. No development could take place because of software dependencies impeding implementation. Also, parallel developments occurred as part of the VME database map viewer (see VME database side event, Annex 4) raising new prospects for the FIRMS map viewer. The FIRMS Secretariat expects to be in a position to build on these developments during the next intersessional period.

### **iii. Quality assurance on Resources/stock assessments – methods (analytical, empirical), uncertainty**

70. The data model presented to TWG3 for Empirical assessment is still in a non standard stage but has been applied to the SWIOFC fact sheets where it was originally requested. In this regard, a basic prototype for the rating the uncertainty level as Low, Medium or High was created building on FAO rules.
71. Ms. Pallares indicated that ICCAT is currently working in the development of Limit Reference Points and Management Strategy Evaluation under the tunaRFMOs framework. ICCAT is also participating in the ICES Strategic Initiative for Stock Assessment Methods (SISAM). This initiative is designed to assure that scientists can apply the best stock assessment methods when developing management advice for fisheries management. SISAM includes the identification of the current set of available methods, and will contribute to the improved application of assessment methods.

72. As part of SISAM next July a World Conference on Stock Assessment Methods for Sustainable Fisheries (<http://ices.dk/iceswork/symposia/wcsam.asp>) will be held in Boston. This initiative will also produce a technical report, develop a categorisation scheme for stock assessment methods ([http://www.ices.dk/sisam\\_categorisation](http://www.ices.dk/sisam_categorisation)) and review methods used around the world. The initiative will seek to encompass approaches that range from quantitative procedures applicable in data-poor situations, through tactical assessment approaches that typify assessment advice today, to multi-species and environmentally-linked models that are at the forefront of research today.
73. ICCAT and ICES will inform FIRMS on the results of these works and how they can be incorporated into the data model and reference terms in the FIRMS Assessment Section.

### **Decisions:**

#### Thematic page Deep seas:

- 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 (FSC8/D6.1)
- 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 (FSC8/D6.2)
- 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 (FSC8/D6.3)

#### Further development of Thematic pages:

- ICCAT will continue to coordinate the development of the Tuna thematic page and promote it among the Tuna network (FSC8/D6.4)
- FIRMS Secretariat will continue to coordinate the development of the High Seas Deep Seas page and promote it among the Deep Seas network (FSC8/D6.5)
- NAFO will coordinate the design of a North Atlantic page in close consultation with the FIRMS Secretariat (FSC8/D6.6)
- 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 gathering enough interest and a leader will generate a small TWG which will work by web conferencing for developing the design (FSC8/D6.7)

#### Fishery life cycle and monitoring period:

- 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/D6.8).

- The FIRMS Secretariat will tentatively introduce the difference between Lapsed and Closed fisheries in the data dictionary (FSC8/D6.9)
- The FIRMS Secretariat will implement those rules and ask the TWG to validate the proposed layout (FSC8/D6.10)

Reporting year:

- 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 (FSC8/D6.11)

Mapping applications:

- FIRMS Secretariat will continue developing the FIRMS mapping applications involving the TWG as required (FSC8/D6.12)

Assessment models and uncertainty:

- 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 (FSC8/D6.13)
- ICCAT and ICES will keep inform the FIRMS Secretariat and TWG on the MSE WG and SISAM results. (FSC8D6.14)

## **7. REVIEW OF STRATEGIC ASPECTS - ENABLING MORE TIMELY INFORMATION, BROADENING GEOGRAPHIC/THEMATIC COVERAGE, TARGET AUDIENCE/COMMUNICATION AND PARTNERSHIPS (AGENDA ITEM 7)**

### **Broadening geographic and thematic coverage (Agenda item 7a)**

74. It was previously recognized that individual nations could contribute information to FIRMS via RFBs which are FIRMS Partners. Following on FSC7’s request, Mr. Taconet presented a proposed standard protocol addressing the involvement of Nations through RFBs. He reiterated that nations are already indirectly involved in the FIRMS process through the RFBs. The proposed protocol formalizes and broadens the process experimented and agreed upon in FAO RFBs (CECAF, SWIOFC, RECOFI).

75. As background, it was noted that information on the state of Resources is primarily handled at the regional level, through RFB regional peer review mechanisms. Information on fishing activity, management, fleets/means of production of a strict national nature is coordinated by RFBs having a fisheries mandate related to the type of fisheries information contributed, and RFBs role is to consistently aggregate this information at regional level with minimum quality requirements.

76. In terms of ownership and responsibilities, pertaining to marine resources, it was noted that Primary ownership and overall responsibility for published info lies with the RFB. For fisheries, primary ownership (control over content) lies with Member countries but corporate ownership on regionally aggregated content and overall responsibility for published info lies with the RFB.
77. The proposal for a standard protocol addressing the involvement of Nations through RFBs was presented. The protocol articulates the role and responsibilities of nations, RFBs and the FIRMS Secretariat (see document FIRMS FSC8/2013/7a).
78. In the discussion which followed, Mr Kossi Sedzro (CECAF) stressed that it is important to obtain the support of the RFB participants, the nations, as they are the originators, the providers of the information that goes to FIRMS but Ms. Pallares countered that the RFBs must be involved as well as they validate the data. In line with his intervention, Mr. Sedzro (CECAF) further stated that an aspect has to be added to the protocol: “the national focal points nominated by the RFBs have to be endorsed by local authorities in their role of coordinating the development of fisheries inventories which have to be eventually validated by competent national authorities.”
79. The participants deemed the protocol to be generally sound.

**Enabling more timely information (Agenda item 7b)**

**Partners plans regarding reporting workflow**

80. Three Partners provided plans that could enable enhanced streamlining for more timely reporting on Resources and Fisheries.
81. GFCM – Ms. Pilar Hernandez indicated that in terms of Resource Fact Sheet contributions, GFCM this year will be creating a format more compatible with the new electronic GFCM stock assessment forms that are handled in a SharePoint environment. Scientists provide this stock assessment information based on sampling and surveys data. The plan is to automatically produce summary sheets from the scientific information including a FIRMS compatible output. GFCM will work with FIRMS to develop converter tools and best methods to accomplish this task. The first step will be to share the new GFCM framework with FIRMS.
82. CCAMLR – Mr. Ramm indicated that CCAMLR is updating its fishery and assessment sheets and developing a web-based database for fishery information. The new website was launched in 2012 and contains information on conservation measures, fishery catch limits and related summaries. A comprehensive fishery description still needs to be developed for the website. Scientific WG reports are also published on the site.
83. ICES – Ms. Bertelsen indicated that ICES is developing a new system building on the SharePoint platform currently used by the ICES scientific working groups. At present, the final Word documents are extracted from SharePoint and converted to the FIRMS format through the converter tools made available by FIRMS. She indicated that under this workflow (soon to be past) it can take up to 400 hours to upload all of the fact sheets. The new ICES content management system RA-CMS is a new tool for drafting, approving and publishing ICES Advice. It uses a no code approach with InfoPath forms and NinTex Workflows under SharePoint (web based). It will increase efficiency leading

to consistency across species and eco-regions and will facilitate a broader scope of use for the Advice. Full implementation will occur in 2014. A presentation of how the new system will work was given.

84. Ms. Hernandez indicated that their system has some elements in common with the new ICES system just described.
85. Other Partners were very interested in the new ICES system and asked if it could be shared.

**New horizons for a FIRMS distributed data base - the South Western Indian Ocean Regional Information System example (SWIOFC's Smartfish-iMarine project) SmartFish Project**

86. The FIRMS Secretary introduced this item reminding the origin of the Regional Information System for the South West Indian Ocean region (SmartFish project), as stemming from SWIOFC-SC recommendations to work on the harmonization of the existing and complementary fisheries systems in the SWIO region. FIRMS and WIOFish are two of these systems and solutions are sought to enable seamless interoperability with limited modifications to the existing reporting frameworks.
87. Mr. Yann Laurent presented an online talk describing the structure and features of the prototype of this SWIO Regional Information System, developed as part of the SmartFish project.
  - The SmartFish project aims to strengthen national and regional fishery/aquaculture policy and strategy frameworks. One of the major outputs expected is to improve knowledge and information in support to fisheries management processes. One component of this improvement is the development of a Regional Information System for South West Indian Ocean Fisheries that would build on the existing Fisheries Information Systems already providing information and statistical data to experts: i) WIOFish, a regional knowledge base on West Indian Ocean Fisheries, ii) FIRMS: an international knowledge base including resources from West Indian Ocean and iii) StatBase: statistical database containing fishery statistics provided by West Indian Ocean countries.
  - The proposed prototype for the SWIO Regional Information System is combining a portal, organizing access to existing information and data in a consistent way to the final user, and a pool of semantic web-based tools / Google-like search engine with suggested content, enriched web pages. The retained solution offers an original non-intrusive path to access information/data scattered in the 3 systems, without the need to physically exchange data.
  - FIRMS partners can benefit from this experience because the solutions implemented reduce reporting burden and enable broad interoperability: reporting is done once and is broadly shared and accessible through other information systems. For implementation, the minimum requirements are: i) defining concepts (already defined in the FIRMS schema), ii) mapping partners concepts against FIRMS ones (such mappings are already implemented in various ways in the FIRMS framework), iii) publishing on its own website using a standard reporting template, and iv) continue yearly reporting of minimum data requirements yearly to FIRMS.

88. Mr. Taconet indicated that if this SWIO RIS project is successful, the FIRMS Secretariat would consider extending this technology to relevant FIRMS situations.

**Interest expressed in FIRMS by INGOs / NGOs involved in consumers and seafood industry education on sustainable fisheries (Agenda item 7c)**

**FIRMS participation to the Science and Sustainability Forum**

89. Ms. Marshall reported on the outcome of her participation as FIRMS representative in the Ocean Trusts Science Sustainability Forum. Mr. Yimin Ye also attended from the FAO. The Science Sustainability Forum held 29 February-2 March in Washington, DC, brought together scientists and those that elaborate scientific information and many of the USA seafood retail buyers. Ms. Marshall delivered a presentation on behalf of FIRMS, and their report of the meeting can be found in document FSC8/2013/4c.
90. The general feeling from the two FIRMS participants was that international information like FIRMS was not well known, that FIRMS was mistaken as a FAO body, that the site looked too institutional, that users were interested by questions like “what percentage of stocks are overfished” and by information on biology and management. It was also suggested that FAO or FIRMS would take over the management of the [RAM legacy database](#).
91. Mr. Ye added that this group thinks that it's worthwhile to promote FAO's Ecolabelling guidelines, using them to develop standard scales against which Management frameworks can be assessed.

**Sustainable Fisheries Partnerships - FisheriesWiki.org**

92. Mr. Jack Whalen from Sustainable Fisheries Partnership, an international NGO whose work is focused on educating and assisting the seafood supply chain in efforts at improving fisheries and aquaculture grow-out regions, presented an overview of [FisheriesWiki](#). This online fisheries data resource, launched in 2012, aims to serve as a kind of 'global commons encyclopaedia of fisheries', providing current and accurate information on marine capture fisheries (and soon, aquaculture), organised into 'profiles', essentially, snapshot summaries of the latest and best science, differentiated by stock, and then under those stocks, key criteria such as fishing country, gears, jurisdiction, and MSC status. At present there are about 600 profiles globally and growing. Mr. Whalen explained current and planned collaborations between FisheriesWiki and FishBase, SeaLifeBase, and the RAM II Legacy Stock Recruitment Database, and then identified several areas of collaboration with FIRMS (and other FAO-related efforts such as NatFIRMS and iMarine), which could take the form of mutual linking, cross-pollination, or linking and data sharing (similar concept of SmartFish). A starting point could be interoperability at the Fisheries Metadata catalog level, which would provide a technical avenue to a NatFIRMS implementation.
93. Concluding his presentation, Mr. Whalen urged on how such collaboration might contribute to FIRMS making fishery data more accessible and understandable to non-technical audiences, and also in concisely summarised (albeit reduced) form to researchers seeking such easily digested snapshots. Future discussions with SFP and within FIRMS on these matters are anticipated.

94. Some partners expressed concerns of intellectual property and visibility nature, ie FIRMS is an information collecting system and does not generate its own information which rather comes from Partner provider sources. Those partners may rather see FisheriesWiki directly interacting with their sources. Also linking was considered much less “risky” than meshing up since the source remains in its integrity.
95. ICES would be keen to see their contribution to FIRMS streamlined to FisheriesWiki so to avoid duplication of inputs, and the existing risks of distorted information considering that currently FisheriesWiki places an interpretation on the materials that it uses on the web site.
96. Various impressions were given regarding Pros and Cons. A remark was made that the same data from different sources could cause issues. The trade-off is between losing control and having better visibility. Care should be given to wording and vocabularies.
97. The FIRMS Secretary suggested that there may be ways to licence or copyright data or work under an MOU to facilitate sharing. Maybe a stepwise approach is appropriate, consider first a Metadata catalogue with links, something that is presently used in FisheriesWiki. It was noted that regardless it would have to drawn from information sources that were public, as is FIRMS.
98. Mr. Whalen in turn suggested that FAO could think of a standard template as to how this could be made available.

**Which FIRMS services on fisheries management information? (Agenda item 7d)**

99. The FIRMS Secretary introduced this agenda item with reference to document FSC8/2013/4e.
100. Since FSC6, an increasing amount of Management information has been contributed by Partners following various fisheries thematic approaches. As well, several partners routinely report Management advice in Marine resources fact sheets. These developments wishfully feed into FIRMS objective “to report on the status of fisheries and their management”. This triggered the need to review the current situation, discuss what use can be made of the Management information in FIRMS, and accordingly address harmonization and presentation issues as listed in document FSC8/2013/4e.
101. Discussions on this topic concentrated mainly on definitions. For example, the difference between compliance vs. management measures was discussed, as well as a more comprehensive categorization of measures such as applied in ICCAT (Conservation and management, Control, Monitoring and Compliance, Statistics and Catch documentation programs, procedural matters).
102. Another discussion focussed on a possible meaning of Management indicator and the possibility of having something for management similar to the concept of Status and trend for Marine resources. There was a consensus that such indicators do not really exist at present and this is an area under development in which RFMOs are involved as part of their performance review. They are some attempts to develop scales against which management performance can be rated, and this could constitute indicators in the future. It was concluded that FIRMS should concentrate for the time being on structuring its information according to concepts with well established definitions.

103. There was general agreement on:

- positioning of the links to Assessed resources in the Fishery Management units fact sheets,
- positioning of the links to the Management units in the Jurisdictional fact sheets
- the consistent use of the concept of Management units across the Fisheries and the Marine resources module.

104. The TWG will be convened to review the other points such as titles within the management fact sheets, the categorization of measures, and in general a strengthening of the definitions for the management concepts.

**FIRMS role on fisheries socio-economic reporting (Agenda item 7e)**

105. Mr. Angel Calvos-Santos (DG Mare) gave a presentation on the EU economic data collected and analysed by DG Mare. It summarized the latest key socio-economic indicators, graphs, charts, tables of fish prices, fuel consumption and cost, fleet structure etc. drawn from a very extensive Economic Report on EU Fleets (STECF).

106. His presentation raised much interest in the group. He indicated that the data collected under the Data Collection Framework (DCF) provided a solid basis for scientific analysis of fisheries and scientific support to policy advice in the framework of the Common Fisheries Policy.

107. Mr Angel Calvo also gave an overview of the 2012 Annual Economic Report (AER) of the EU fleets and some examples of applied economic analysis in fisheries. The fact sheets developed in FIRMS are based on the output and analysis included in the AER.

108. During FSC7 (December 2011) DG MARE through its representative Mr. Angel Calvo expressed interest in cooperation with FIRMS by contributing aggregated socioeconomic reports on the European fleets. It was determined that aggregated scientific data from the Annual Economic Report (AER) of the EU fleets would be used in the context of FIRMS projects, in accordance with the general provisions for the use of scientific data in the EU data Collection Regulation.

109. Two case studies of DG MARE socio-economic information were developed as fact sheets in FIRMS and those were presented. The first fact sheet reflects a country based fleet assessment - [EU Danish fishing fleet](#). The second fact sheet reflects an area based assessment - [Mediterranean and Black Sea](#).

110. With reference to document FSC8/2013/4f, the FIRMS Secretary proposed the objective to formulate a common vision as to how FIRMS partners can join forces in promoting transparent reporting on socio-economic performance of fisheries. Any move towards such vision would have to consistently build on DG MARE's and FAO's experience and projects, to well understand the diversified nature of socio-economic information and the different scales at which assessments can be made, to build on CWP's role in consolidating globally acceptable socio-economic definitions, as well as FIRMS role in promoting multi-disciplinary partnerships for information sharing; or the role of other similar information sharing networks.

111. Mr. Taconet pointed out that the potential to link and draw a comprehensive landscape of multidisciplinary information, as suggested through the case studies, is quite broad. It was asked if the socio-economic data could be drilled down into, by gear, country, and area for example. Mr. Calvo indicated that DG Mare maintains and updates a spreadsheet with the aggregated socio-economic datasets and indicators analysed in the AER . This is an important attribute to facilitate matching up fishery or resource data with socio-economic aspects. The comprehensive set of indicators can be utilized at supra-region level (North Atlantic, Mediterranean, other areas), while at higher geographic resolution (e.g. ecoregion) only transversal data (catches and effort) data can be utilized combined with proper methods for allocating economic data at disaggregated level .

112. The issue was raised that in most places such data is not available. Ms. Cassandra deYoung, socio-economist at FAO, stressed the importance of demonstrating the usefulness in policy making, as done by DG MARE. A challenge in developing countries is to assemble the many relevant data which exist, starting with basic indicators, including through collaboration with the RECs.

#### **Target audience and communication strategy (Agenda item 7f)**

113. The FIRMS Secretary introduced this topic initiated at FSC7 stating that communicating properly has now become a key requirement for FIRMS success. He referred to document FSC8/2013/4g where a complete description of the proposed FIRMS Communication Strategy can be found.

114. FSC7 acknowledged that the name of FIRMS (Fishery Resource Monitoring Systems) may be limiting and while the acronym and logo is quite branded it may be able to change the name to more accurately reflect the inclusion of the Fishery aspects. Two suggestions were made: Fisheries and Resources Monitoring System, or Fishery Information and Resources Monitoring System. It was agreed that the name be changed to the first choice.

115. Proposed communication messages to four distinct groups of target audience were presented for discussion and input. The concerned groups were

- Group 1 - RFBs and their Member states
- Group 2 - Governmental agencies
- Group 3 - Global or Regional marine science networks promoting
- “The State of the environment”, (by public UN or LME bodies) and/or “Sustainable fisheries” (by international NGOs)
- Group 4 - Public sector donors

116. The discussion around the communication messages was very lively. All agreed that Communication messages are a useful resource but that their wording needed to be carefully crafted and that process should be done inter-sessionally. Some suggestions were provided as a starting point for the intersessional discussions, responsive to different clients. These include:

- the interest of FIRMS is to put all the information in a standard format
- wordings in respect of the contribution to EAF should be changed

117. Objectives of communication strategy were presented by target group together with related elements of a communication plan, and discussed. The discussion also considered the information products which should be promoted/developed in support of the messages.
118. In relation to Member States (Group1) and Governmental agencies (Group2) target audience, it was proposed that FIRMS should be part of the next COFI agenda, in order to receive guidance from Member states regarding FIRMS usefulness and a possible opening of FIRMS to Nations. The possible application of the Spanish language at gateway pages level should also be evaluated by looking at the web trends.
119. Regular e-bulletins are deemed valuable and will have broad distribution if properly relayed by Partners among their mailing lists.
120. Regarding iNGOs promoting sustainable fisheries (Group 3a), more thoughts were generally deemed necessary as to what FIRMS want from them. Some fears were expressed, including the context in which it will be reused, the risk for distortion of the reused information, lack of visibility of the sources, and existing policy for citation of sources. As initial steps, the addition of logos in FIRMS fact sheets, and the link to the FIRMS partner site from the ownership statement, were supported. In support of the message that FIRMS delivers fisheries management information, a thematic page on Fisheries Management could be set-up as first step towards a compendium of management information in FIRMS.
121. Regarding the “State of the environment” (Group 3b), a better visibility of the State and Trends descriptors in the fact sheets should be considered by the TWG.

### **Decisions:**

Standard protocol for involvement of nations:

- 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 (FSC8/D7.1)
- 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 (FSC8/D7.2)

Partners plans/experience regarding reporting workflow:

- 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 (FSC8/D7.3)

Interest expressed by NGOs on the use of FIRMS information:

- 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 proposals for collaboration will have to be examined

by the FIRMS partners and green light obtained from FSC before implementation  
(FSC8/D7.4)

- 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 (FSC8/D7.5)

FIRMS services on fisheries management information:

- 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 (FSC8/D7.6)
- It was proposed that FIRMS do further exploration with the help of other RFBs in ways to integrate the socio-economic information (FSC8/D7.7)

FIRMS Communication strategy

- It was decided to change the FIRMS name to: Fisheries and Resources Monitoring System The FIRMS Secretariat will implement this change as required (FSC8/D7.8)
- During the intersession, proposed communication messages will be reviewed and fine tuned (FSC8/D7.9)
- A Management thematic page will be added to the list of potential thematic pages (FSC8/D7.10)
- A request for a proposal for the display of state and trends descriptors will be made to the TWG (FSC8/D7.11)
- A few improvements for enhancing partners visibility will be made in the fact sheets (FSC8/D7.12)
- The FIRMS Secretariat proposed a communication plan (FSC8/D7.13)

## **8. FIRMS INFORMATION MANAGEMENT POLICY (IMP) - FSC7 VERSION**

122. Mr. Aureliano Gentile from the FIRMS Secretariat provided an update of the Information Management Policy (IMP).

123. The IMP document was updated according to FSC6 and FSC7 decisions. Modifications took place in the following sections:

- Chapter 7.1 - Citation standards
- Annex 1.1 - Marine Resource Data Dictionary
- Annex 1.2 - List of reference terms for Marine Resources
- Annex 1.3 - FIRMS Stock Status descriptors
- Annex 2.1 - Fishery Data Dictionary

### **Decision:**

- The updated IMP document can be made available through the FIRMS web site replacing the current one (FSC8/D8.1)

- Capability to produce pdf output from fact sheets should be instituted (FSC8/D8.2)

## **9. INTERSESSIONAL WORK PLAN**

124. Planned activities were summarized and presented as follows:

### **Broadening of FIRMS coverage**

- Exploiting the experience matured with CECAF and RECOFI, FIRMS Secretariat will interact with RFBs in order to expand the FIRMS data coverage: candidate areas are SWIO (collaboration with WIOFish through a regional workshop planned in fall 2013) and WCA (WECAFC-FIRMS workshop)

### **Enhancement to FIRMS modules**

- modules improvement according to FSC8 feedback and decisions
- implementation of the Reporting vs. Reference year
- fishery resources and fisheries map viewer
- new thematic pages and information corners
- fisheries browser, intuitive browsing system able to handle the multi-faceted aspect of fisheries (FLOD-iMarine)
- improving website layout

### **Training / Assistance to partners**

- Specific training/assistance to regional Partners aiming at validation of additional regional/national inventories: WECAFC and SEAFDEC are current candidates (would require a regional workshop and confirmed funding).
- Case studies: More generally where exploratory actions are necessary, the Secretariat will assist Partners or Observers with development of Case studies.
- Data input: Dedicated training could be arranged for those partners willing to adopt the Word/Excel-to-XML converter tools.
- Routine assistance to established Partners

### **FIRMS Promotion**

Implementation of a communications plan which includes:

- Seeking participation of more RFBs
- Preparing/adopting a communication plan shared by FIRMS Partners through the endorsement of key-messages and implementing mailing lists, e-news, poster, improved home page, information corners, a Wiki page which collates the FIRMS communication material, etc.
- Promoting links to the FIRMS website from national agencies websites
- Increasing the dissemination of FIRMS fact sheets from Partners' website
- Communicating broadly on FIRMS synoptic views on status and trends
- Communicating on FIRMS progress at Partners' meetings

- Reporting on FIRMS progress at next COFI and to organize a side event for raising awareness of the ongoing activities

#### **Activities addressed to FSC8 online**

- Discussion to define communication messages for different target audiences.
- Outcome of the copyright/licensing survey among the FIRMS partners, and follow-up
- FSC might agree to a face to face TWG

#### **Activities addressed to TWG**

- Strengthening the definition of the Management concepts and the harmonization of management fact sheets among partners.
- Proposal for the display of state and trends indicators
- Proposal for a copyright and licensing scheme

**Activities addressed to sub-TWG:** Sub groups of directly involved or interested people should be created in order to discuss more easily on specific and well defined issues.

- Revision of the Deep seas (high seas) thematic page through the creation of a consolidated list of deep species according to partner's ad hoc definitions of deep seas species.
- Design and development of thematic pages as per interest expressed by the Partners (see list in Annex 3). This includes in particular the Tuna, Deep seas, and Management thematic pages.
- Revision of Assessment model and Method lists.
- Revision of standard terms defining depth zone and other fishing ground or habitat descriptors.

### **10. PLANNING FOR THE NEXT SESSION OF FSC (FSC9)**

125. FSC tentatively agreed that the FSC9 would be held in Swakopmund Namibia in early 2015, hosted by SEAFO.

#### **Decision:**

- An online questionnaire will be circulated to determine exact timing of the meeting (FSC8/D10.1)

### **11. ANY OTHER BUSINESS**

126. 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.

**Decision:**

- Ms. Barb Marshall will prepare this letter shortly after FSC8 (FSC8/D11.1)

**12. ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON**

127. FSC agreed to extend Ms. Barbara Marshall's (NAFO) term as Chairperson to the next meeting. FSC welcomed Ms. Mette Bertelsen (ICES) as the incoming Vice Chairperson.

**13. ADOPTION OF THE REPORT AND CLOSE OF SESSION**

128. The report was adopted on 8 January 2013 at 12:45 hours. The Meeting was closed. The participants expressed their thanks to FAO and the FIRMS Secretariat for their hospitality and a well-resourced meeting.

## Annex 1

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## **Side Events**

### **VME database**

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### **Integrated Catch Information System (ICIS)**

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## Annex 2

### MEETING PLACE: QUEEN JULIANA ROOM B323

**Monday, 4 February 2013**

all day: 09:00 hours to 18:00 hours

1. Opening of session and Welcome address
2. Adoption of agenda
3. FIRMS membership
  - a) Progress on the development of FIRMS Partnership
  - b) Review of new perspective Partners
4. Review of Annex 2
  - a) Proposed information contributions of new Partner(s)
  - b) Proposed modifications by existing Partners (in Partners activity reports FIRMS FSC8/2013/2x)
5. Review of FIRMS activities during the intersession (cf Doc. FIRMS FSC8/2013/2x)
  - a) Report on intersession activities
  - b) Key topics regarding status of the FIRMS website
    - Marine Resource and Fishery modules - progress on populating the data base
    - Fact sheets' layout/template improvement
  - c) Home page and thematic pages
    - home page – communicating better
    - thematic pages on Tuna and on deep sea (high seas) demersal resources
  - d) Partners' follow-up regarding previous recommendations
    - communicating on FIRMS progress and NatFIRMS at Partners' meetings
    - contribution to FIRMS outreach at regional level
6. Report of virtual Technical Working Group 3
  - a) Summary report of e-TWG 3
  - b) TWG recommendations for final endorsement by FSC8
    - User interface for presenting “Monitoring cycles of Marine resources” and “Fisheries life cycles”
  - c) On-going issues for FSC8 considerations

- i. The “Reporting Year” issue
- ii. The FIRMS Resources and Fisheries map viewer
- iii. Quality assurance on Resources/stocks assessments – methods (analytical, empirical), uncertainty

Side event - 14.00-14.30 - Introduction to the Global VME database

**Tuesday, 5 February 2013**

all day: 09:00 hours to 18:00 hours

7. Review of strategic aspects - enabling more timely information, broadening geographic/thematic coverage, target audience/communication and partnerships

a) Broadening geographic and thematic coverage

- Proposed standard protocols addressing the involvement of Nations through RFBs

b) Enabling more timely information

- Partners plans for reporting on Resources and Fisheries
- New horizons for a FIRMS distributed data base

c) Interest expressed in FIRMS by INGOs / NGOs involved in consumers and seafood

- industry education on sustainable fisheries
- Outcome of FIRMS participation to Ocean Trusts Science Sustainability Forum
- Presentation of FisheriesWiki.org by Sustainable Fisheries Partnership, towards collaboration

d) Which FIRMS services on fisheries management information ?

- Open discussion based on Partners suggestions

e) FIRMS role on fisheries socio-economic reporting

- Review of DG-MARE’s example fact sheets
- Towards a TWG meeting in support to the development of Reporting standards?

f) Target audience and communication strategy

- Elements of communication strategy
- Status/progress of previously agreed communication products – new proposals

8. FIRMS Information Management Policy (IMP) – FSC7 version

- Updated Marine resources and Fisheries inventory guidelines

- Updated sections of the IMP

9. Intersessional work plan

10. Planning for the next session of FSC (FSC9)

11. Any other business

12. Election of Chairperson and Vice-Chairperson

Side event - 14.00-14.30 - The Integrated Capture Information System (ICIS – iMarine)

**Friday, 8 February 2013**  
morning: 10:00 hours to 12:00 hours

13. Adoption of the Report and Close of Session

#### **Annex : Reporting template for intersessional activities**

1. Developments on inventories of Marine resources, and of fisheries; revision of Annex 2
2. Reporting on status/trends of Marine resources, and of fisheries;
3. Development/review of standards
4. Development of Applications (eg. new module at Secretariat level, or enhancements in streamlining workflow at Partner level);
4. Development of case studies/prototypes;
5. Training or skills development;
6. Promotional activities
7. Planned activities during the coming intersession period.

Annex: Revised annex 2 (if applicable)

### Annex 3

#### Thematic pages, lead person, and participants

<b>Thematic page</b>	<b>Leader</b>	<b>Participants</b>
<b>Tuna</b>	Pilar Pallares	Yimin Ye, Pilar Pallares
<b>High seas Deep seas</b>		Barbara Marshall
<b>North Atlantic by eco-region (science to decision making)</b>	Barb Marshall	Mette Bertelsen, Pilar Pallares
<b>Management</b>		Cassandra de Young, Nicole Franz
<b>Mediterranean/east Atlantic</b>		Pilar Pallares
<b>Indian Ocean</b>		Bernadine Everett, Yaqoob Salem, David Ramm
<b>Pacific</b>		David Ramm, Yimin Ye
<b>Sharks</b>		Bernadine Everett, Yimin Ye, Pilar Pallares
<b>Shrimps</b>		Bernadine Everett
<b>Euphausiids</b>		David Ramm
<b>Other proposals</b>		

## Annex 4

### Side Events

#### Side Event 1 - Introduction to the Global VME database

1. Mr. Tony Thompson, under contract to FAO, gave a description and brief demonstration the Global VME Database. This is work that follows on from the recommendations produced by FAO Workshop for the development of a global database for vulnerable marine ecosystems (VME-DB). Rome, 7-9 December 2011. A mock-up and framework was provided by remote PowerPoint presentation. The system is to include a VME map viewer module.

2. Mr. George Campanis enquired whether the system is to incorporate indicator species, specification for closed/not closed areas, time series for the fisheries footprints and statistical divisions. The response was affirmative on all items although at this time indicator species will be presence/absence rather than abundance records.

3. Mr. Neil Campbell noted that EBSA has a similar repository and it would be beneficial if the two systems were compatible. Ms. Jessica Sanders indicated perhaps in the future appropriate synergies could be developed when the VME system is expanded.

4. The system will provide the ability to download shp (geographic) files representing VME areas but not the underlying data (policy issue).

#### Side Event 2 – The Integrated Catch Information System (iMarine / ICIS)

FAO is participating in the EU FP7 project iMarine. The project aims at delivering a complete infrastructure to support the **Ecosystem Approach to Fisheries Management and Conservation of Marine Living Resources**.

The presentation included:

- Introduction to iMarine (A. Ellenbroek)
  - The iMarine project is the latest in a series of EU FP7 project, progressively moving from establishing an infrastructure to exploiting by user communities
  - The iMarine infrastructure can host a variety of resources; from databases to community tools, from web services to collaborative environments
  - The infrastructure can manage most community tools, the advantages lie in low exploitation costs, powerful servers, back-up facilities and seamless sharing
  - The concept of Virtual Research Environments was explained; on a large infrastructure resources can be bundled to provide organized views over data, offer processing facilities and share confidential data
  - One example of such an environment is ICIS, illustrated by Yann Laurent

- The ICIS iMarine Virtual Research Environment (Y. Laurent)
  - The VRE main objective is Time Series Harmonization
  - Through Pooling Resources, community tools can be shared, and Time Series can be repurposed in other domains (geospatial, biodiversity)
  - This pooling results in a well managed data environment, with sharing of high quality dataset through internationally accepted standards
  - The participants were invited to contribute to this e-Infrastructure, or exploit its services
- ICIS VRE demonstration (Y. Laurent)
  - A very small set of functionality was demood, to offer the participants a quick preview
  - This included the upload of a a csv file, and the harmonize steps to convert to a harmonize a dataset following standardized terms and codes

The iMarine infrastructure has many versatile uses, including the development of apps. AppliFish is one mash-up example, providing information on the status of fish species. The FAO FishFinder species fact sheets <http://www.fao.org/fishery/species/search/en> did provide the backbone of the AppliFish content, completed with data from OBIS, WoRMS, Fishbase, Aquamaps, IUCN

- for Android <https://play.google.com/store/search?q=applifish>  
for iOS <https://itunes.apple.com/ca/app/applifish/id593857305?mt=8&ign-mpt=uo%3D2>