

**FIRMS Steering Committee Meeting****Seventh Session****Italy, Rome, 12-13, 16 December 2011****FINAL REPORT****Author: FIRMS chairperson, with inputs from SC members****1. OPENING OF THE SESSION AND WELCOME (Agenda item 1)**

1. The Seventh Session of the FIRMS Steering Committee (FSC7) was held at FAO headquarters in Rome, Italy from 12-13,16 DECEMBER 2011. The meeting was opened by Mr. Marc Taconet, FIRMS Secretary, at 0900 hours on Wednesday 12 December 2011. Mr. Michael Hinton, who was to Chair the meeting was not able to attend in person but joined the meeting through internet video conferencing. In the further absence of the vice-chair person, Mrs Pouchamarn Wangsansa who has resigned from SEAFDEC, Mr. David Ramm (CCAMLR) was appointed as interim Chairperson and he welcomed the participating FIRMS representatives from the current Partner agencies:

- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
- European Union, represented by DG MARE
- 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)
- Inter-American Tropical Tuna Commission (IATTC)
- International Commission for the Conservation of Atlantic Tunas (ICCAT)
- International Council for the Exploration of the Sea (ICES)
- Northwest Atlantic Fisheries Organization (NAFO)
- North East Atlantic Fisheries Commission (NEAFC)
- Southeast Asian Fisheries Development Center (SEAFDEC)

The three following Observer agencies were also represented:

- Secretariat of the Pacific Community (SPC) , a long established Observer,

and attending for the first time,

- North Atlantic Marine Mammal Commission (NAMMCO)
- Interim Secretariat of the South Pacific Regional Fisheries Management Organisation (SPRFMO)

Participant list is in Appendix 1.

Partners not present were from:

- Commission for the Conservation of Southern Bluefin Tuna (CCSBT)
- Indian Ocean Tuna Commission (IOTC)
- South East Atlantic Fisheries Organization (SEAFO)

Mr. Yimin Ye agreed to act as co-chair, and the chairing responsibilities were distributed among the two chairs.

## **2. ADOPTION OF THE AGENDA** (Agenda item 2)

2. The Chairperson reviewed the agenda which was adopted. He noted that additional business would include discrepancies in reference years (under agenda Item 7), review of title of FIRMS (under Item 8), frequency of meeting of FSC (under Item 12) and a presentation of the FAO VME Database initiative (under other business, 13).

3. Mr. Marc Taconet also noted that FIRMS has reached maturity with the founding partners, and that FIRMS provided a network among partner organizations for building value added knowledge. However, the need for strategic communications for the purpose of outreach to other potential partners was needed. This matter was discussed further under Item 9.

## **3. FIRMS MEMBERSHIP** (Agenda item 3)

### **Agenda item 3.1: Progress on the Development of FIRMS partnerships**

4. It was noted that FSC6 called for active outreach towards new potential FIRMS partners. FIRMS was presented at a side event at COFI 2011 and at the RSN3 meeting. It was reported that letters of invitation went out to nine RFBs: WCPFC (also contacted by IATTC), SPC, NAMMCO, NASCO, BCC, OLDEPESCA, CTMFM, PSC, IHPC) and a specific invitation was addressed to DG MARE in the context of the departure of Eurostat. Finally RECOFI at its WGFM5 has indicated possibilities that it would join the Partnership in 2013.

5. Membership remains at 13 partners. There was no immediate new request for membership but there were expressions of interest from NAMMCO, SPC, SPRFMO and RECOFI (present at FSC7) and NASCO and BCC (email feedback). The representatives from RECOFI, SPC (for itself and reporting back to WCPFC) and NAMMCO indicated that they were here to determine if it is appropriate for their organization to become a partner. Ms. Pilar Pallares (ICCAT) indicated that the

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inclusion of WCPFC would make tuna issues more complete within FIRMS. SPRFMO indicated that when the eight required ratifications to the convention will be achieved they would consider becoming a partner.

6. A question was asked about potential overlap among partners with the example of NAMMCO and IWC; both deal with marine mammals. Ms. Charlotte Winsnes (NAMMCO) indicated that NAMMCO has a broader coverage in terms of species and where the two organizations overlap in the realm of large whales in the North Atlantic they would work cooperatively to avoid duplication in reporting to FIRMS. FSC agreed that this cooperative approach should be regarded as a general principle.

7. Mr. Marc Taconet noted that although Eurostat was a founding partner, they were not in a position to provide socio-economic data and these data would be provided under DG MARE (see paragraph 94).

8. Apart from dispatch of e-bulletins, there have been no recent specific promotional activities concerning donors, conferences or events, or press releases.

### **Agenda item 3.2: Review of new perspective Partners**

9. Except for the prospect of new regional fishery bodies (e.g. those concerned with Deep Sea fisheries in the Indian Ocean or the North Pacific), no suggestions were made for other organizations.

#### **Decisions:**

- An important objective will be to encourage WCPFC to join the partnership in order to achieve a global coverage of Tuna bodies;
- The above listed Organizations which have responded positively should be encouraged to join;
- At present there should be no further specific outreach effort; it was deemed more important at this stage to focus on populating the FIRMS site with data from the partner organizations.

#### **4. REVIEW OF ANNEX 2 OF NEW OR EXISTING PARTNERS (Agenda item 4)**

10. Partnership agreements ("Annex 2 to FIRMS partnership arrangement" describing the information each partner intends to provide to FIRMS) were discussed. There are no new partners but several existing partners indicated that there were modifications to their agreements due to developing contributions to the marine resources or fisheries module.

11. Ms. Barbara Marshall indicated that NAFO is now contributing fisheries management information to the new fisheries module and that this change in reporting will be reviewed and expectantly accepted by NAFO's General Council in 2012.

12. Ms. Pilar Pallares indicated that ICCAT have increased the number of reported stocks and species, including new fact sheets for several pelagic sharks.

13. Ms. Nualanong Tongdee indicated that SEAFDEC is contributing data to FIRMS as the opportunities arise and on a project by project basis. The latest contribution concerns Sea Cucumbers.

14. Mrs Mette Bertelsen noted that the list of species reported by ICES has been expanded resulting many more fact sheets.

15. Some prospective partners enquired about the requirements and procedures for submitting information to FIRMS. The Chair indicated that it is up to each new partner to identify the types of data and information which could be contributed to FIRMS. The types of contributions and their level of resolution (e.g. regional coverage, species groups) would be made in accordance with Partners' mandates and in a standard format i.e. FIRMS provides the tools and the templates.

16. Mr. Kossi Sedzro (CECAF) indicated that they are developing a fisheries inventory at the national level, i. e. countries are performing work on behalf of CECAF for 200-300 fisheries, with more than 100 already validated by the scientific committee. It was noted that CECAF and SWIOFC are RFBs under FAO Article 6, namely associate partners without as much autonomy.

17. FSC noted that SWIOFC's Scientific Committee has validated its first inventory of resources, and about 120 are being currently loaded in FIRMS.

18. FSC also noted that GFCM is continuing to process information on stock assessments for FIRMS and developing the list of GFCM stocks.

19. Upon a question of RECOFI, the Secretariat indicated that reporting by geographic sub-divisions can be considered but this is a matter for the concerned organization to decide.

20. FSC agreed that a fact sheet be developed to inform prospective partners on FIRMS operations and activities. A side session to demonstrate how FIRMS works was proposed and executed for prospective partners at this meeting.

**Decisions:**

- Partners with changes in the nature of their contributions are requested to provide draft revision to their Annex II by February 2012 . This concerns at least FAO, ICCAT, NAFO, and SEAFDEC.

**5. REVIEW OF FIRMS ACTIVITIES DURING THE INTERSESSION** (Agenda item 5, cf Docts. FIRMS FSC7/2011/2a-i)

21. Mr. Marc Taconet, Mr. Aureliano Gentile and Ms. Elena Balestri presented a report on Secretariat activities carried out during the intersession with highlights on key topics, including contributions processed and difficulties encountered (FSC7/2011/2a).

22. With reference to the work plan agreed at FSC6, five partners submitted one-page summaries of activities (FSC7/2011/2b-i), while FAO's report (as partner) was included in the Secretariat's activity report. A summary was presented by Mr.

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Taconet. It was noted that some items on this summary are more appropriately discussed with other relevant items on the Agenda.

**Marine Resource module:**

23. Developments on inventories and resource fact sheets included: ICCAT - 6 marine resource fact sheets related to sharks published; ICES - 191 marine resources updated in 2010 and descriptors revised; NAFO - descriptors revised; GFCM - 28 new marine resources were proposed; SEAFO - 12 validated by SC and published; SWIOFC - 121 objects loaded in the data base ready for creating fact sheets; CECAF: over 100 new fisheries were inventoried at the national level.

**Fishery module: management and fishing activity information in FIRMS**

24. Developments on inventories and Fishery Fact Sheets included: NAFO – an inventory of 4 new fishery management units in progress; NEAFC - 7 fisheries published; RECOFI - national fishery inventories in progress; SEAFDEC - 7 additional fisheries inventoried (sea cucumber); SWIOFC - collaboration with WIOFISH database agreed.

25. Mr. Marc Taconet presented several examples of Fishery Fact Sheets (NEAFC, CCAMLR, CECAF) to illustrate the difference approached taken by partners in developing these sheets. There was discussion about what type of information was relevant to report (fishery specific). The need to indicate what country was fishing when reporting on distant water fleet activity was noted. Particularly in the case of large pelagic fisheries, two countries could be involved in the activity.

26. FIRMS Secretariat indicated that the number of existing Fishery Facts Sheets now total 44 and number of fisheries inventoried totals 725. Details by RFMO and temporal patterns in fact sheet production were presented.

**Thematic pages – regional pages**

27. The Secretariat noted that work was done intersessionally on the creation of “thematic areas” and the publication of Global Thematic Pages (tuna, deep sea/high seas demersal resources). FSC agreed that the thematic pages facilitated interactions among partners. The regional pages may contain a Marine Resource Inventory map with colours distinguishing different stages of validation. Regional Thematic Page development is a work in progress (eastern central Atlantic, Gulf, Oman Sea, SW Arabian Sea, SW Indian Ocean).

**Mapping component**

28. FIRMS Data coverage maps were developed to better represent and quantify FIRMS coverage and for highlighting the gap between monitored and unmonitored resources. Separate maps were created for Tuna bodies, and for Coastal and high seas deep seas bodies, as well as for marine resources and fisheries inventories. These maps show qualitative and/or quantitative representations of the geographic coverage, expanding dots expressing quantity with colours distinguishing status (validated, not validated, estimated) of the inventories. Clarification was provided in

terms of qualification of the inventory status.

29. FSC noted that there were no data on the thematic maps for South America and SE Asia. FIRMS has no partners from South America and in SE Asia. Although SEAFDEC can not take ownership for national contributions reported by the Secretariat it is investigating options to channel countries data to FIRMS. It was noted that quantitative representations of the facts might be misleading for external users consumption and further consideration might be given before publishing those maps.

30. Map dynamics were enhanced in the fact sheets (zooming, panning etc.) and the newly introduced overlay of species distribution maps was highlighted.

### **Partners reports**

31. ICCAT reported on new factsheets for 3 sharks, continued implementation of fact sheets for the principal tuna/tuna-like stocks and FIRMS descriptors for assessed stocks were implemented (FSC7/2011/2b). ICCAT provided relevant information for inclusion in the new tuna thematic page. The ICCAT web page now has a permanent link to the FIRMS web site and a gateway page to FIRMS will be incorporated.

32. The report from CCSBT indicated that skills in the use and editing of the XML templates were being developed (FSC7/2011/2c). The CCSBT web site now provides a cleaner, interface and easier navigation. A link to the FIRMS website is included.

33. CCAMLR reviewed requirements and formats for reporting information on species, fisheries and fishery resources (FSC7/2011/2d). Use of thematic pages and other consolidated approaches are being considered.

34. ICES has updated 191 fact sheets, reporting on the status and trends of all ICES stocks. New fact sheets have been developed corresponding to new species for which advice is given in ICES. In producing the updated fact sheets, a number of FIRMS systems were tested and feedback was provided to FIRMS. A four day course was held in January 2010 to train two ICES Secretariat persons in the use of the Word to XML converter tool. The ICES web page now has a link to the FIRMS web site.

35. NAFO is developing Fishery Fact Sheets (FSC7/2011/2i). The Marine Resources Inventory has also been updated to include the depth zones. All but shrimp MR submissions are up to date. NAFO has developed a fishery fact sheet giving a general overview of fisheries in the NAFO Regulatory Area (NRA). NAFO links to the FIRMS website from its own web.

36. Information on activities by other partners (NEAFC, CECAF) relates mainly to updating of fact sheets.

37. Some partners (ICCAT, NEAFC, NAFO, CCAMLR, IOTC) were re-developing their websites and/or made use of embedded FIRMS fact sheets in their website. FSC agreed that links to the FIRMS website would further contribute to FIRMS's outreach.

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### **Web Trends:**

38. FSC noted the Web Trends statistics information on the usage of the FIRMS website. Both the number of visits and number of pages viewed increased linearly along the considered period, with 45% of visitors accessing FIRMS through search engines (mostly Google). About 34% reach FIRMS through referral sites and 21% of visits is due to direct traffic, mainly North American and European visits. 70% of the visits are made by English-based browsers. Top viewed pages, there are the home page, the search interfaces and several high level fact sheets, mainly tuna.

### **Application/software developments**

39. Improvements to the Fishery module fact sheet layout including structural changes for presentation of the Management section was presented (NEAFC)

40. FIRMS web site is now fully handled by the FIGIS Content Management System.

41. Partners' organizations summary description fact sheets were upgraded with a new template which includes a dynamic map of the RFB's area of competence

42. Development of mapping application - new maps are displayed within all FIRMS fact sheets showing multiple layers: species distribution, RFBs' area of competence, jurisdiction/organization, country listing. The FIGIS mapping engine was completely rebuilt for allowing above mentioned new web features has absorbed a considerable amount of Secretariat's time.

43. New web services were developed for extracting information from the fact sheet XML outputs with different levels of granularity. Word-to-XML converter tool - word converter was upgraded. Work on the Excel converter is in progress - examples of the new mapping application were shown.

44. It was also noted that responses from a number of partners are often delayed or absent both in occasion of discussions on technical issues and when a feedback is requested for updating the inventories or producing fact sheets.

45. It was noted that in areas of the world with slow internet access. it can be problematic for some FIRMS web functions, suggesting a need for simpler options. This may be one reason why web hits are concentrated in Europe and North America. Most partners agreed that this was not a significant issue.

46. FSC noted that there were no real budgetary constraints during the intersession on both Regular Programme allotments and Project funding support. Presently, the majority (67%) of funding is allocated to data submission and training activities. In earlier years, a higher proportion of funding went to software development. It was however reported that the FAO Regular programme is expected to allocate less resources to FIRMS during biennium 2012-13 and that the Secretariat capacity to support further development will be seriously affected if no new extra-budgetary resources can be mobilized after 2012.

**Decisions:**

- Thematic and regional pages are valuable and partners are encouraged to suggest more.
- Publication of data coverage maps should be done cautiously, with iterative steps starting from more qualitative representations
- Efforts should be made both by Secretariat and partners to identify extra-budgetary resources.

**6. THE RESOURCES-TO-FISHERIES CONTINUUM - or seeking the right compromise between information management constraints and an intuitive user interface (FIRMS FSC7/2011/6) (Agenda item 6)**

47. FSC noted that the Marine resources module covers the biological dimension (state of stocks), while the Fisheries Module covers the human dimension (Fishing activity, Management, Fleets). Marine resources module was the first to be designed and published in FIRMS. However inventories could not be easily categorized into discrete concepts and the reality requires a continuum between these modules. From a strict information management view point, the existence of the two modules is necessary in order to maintain simplicity in the data structure and to obtain consistent results e.g. on State and trends summaries. However this duality of modules entails some constraints, the need to maintain fact sheets on both fisheries and resources, and a user interface which, because it reflects this artificial split instead of the continuum, is flexible and intuitive enough.

48. Recent feedback from a scientist who examined the FIRMS site helped to illustrate the issues. The first issue relates to co-existence of the resource and fisheries concept in terms of website usability. Two entry points for searching resources status reports made it difficult to distinguish actual stock assessments from other resources assessments. There is no clear idea about actual owner of report. A toothfish example was used to illustrate the current difficulty arising from the use of distinct modules for resources and fisheries.

49. The second issue relates to the need for a continuum in data poor areas and current structure does not cater to a continuum. In data poor areas, the developing scientific assessment process clearly reflects a gradient of knowledge, ranging from expert judgment based on fisheries information, to actual biological assessments as illustrated by a SWIOFC example.

50. SWIOFC SC requested that information to be added in the FIRMS inventory that express levels of uncertainty associated with the assessment methods and the data process (including e.g. "based on expert judgement").

51. From a user point of view, the requirement is to be able to access comprehensive knowledge, distinguish quality levels on assessments and extract consistent summaries. In terms of system architecture, a flexible data model is needed

52. Solutions with two options were discussed (see document FSC7/2011/6). Option 1 consists of merging at the data model level the Marine resource and fishery concepts, while Option 2 maintains the two concepts with better data structure alignments and enable virtual merging at interface level.



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53. Comments on these proposed options are as follows. Mr. Ricardo Federizon (NAFO) suggested that problems arise when there is more than one fishery on a resource and when there is more than one resource in a fishery (multi-species fisheries).

54. Mr. Yimin Ye indicated that tuna resources are oceanic and their assessment is done by stock, which often covers a whole ocean, but tuna fisheries should be dealt with fishery by fishery as fishing fleets, operation and social and economic situations are different between countries. Ms. Pilar Pallares indicated that often resources assessments are based on simple fishery data. Mr. David Ramm indicated that the task of partners in choosing to contribute to the Resources or Fisheries module would be facilitated if a matrix showing how a core set of data contribute to the website features was available. Others indicated that the two aspects should be kept separate, e.g. in the North Atlantic the split between fisheries (NEAFC) and resources (ICES) seems clear, as is the case in the Pacific for SPC.

55. The FSC agreed that the two modules should be maintained distinct but that searching flexibility is important and should be pursued on FIRMS' website.

**Decisions:**

- Adopt Option 2 (keep fishery resources and fisheries modules separate and design the system to better integrate the two modules (virtual merging)) with necessary amendments, in relation with the work requested from TWG (item 7b).
- A joint search interface should be accessible from the home page for retrieving both Marine Resource and Fishery fact sheets.

**7. REPORT OF VIRTUAL TECHNICAL WORKING GROUP<sup>1</sup>** (Agenda item 7)

56. The TWG did not hold face to face meetings, but FSC6 agreed that upon request the TWG would hold virtual meetings as required. The issues addressed were:

**a. Proposed standard for handling "Monitoring cycles of Marine resources"<sup>2</sup>**

57. Seven years of FIRMS data contributions have demonstrated that the Marine Resource module is a dynamic entity. For the Marine Resources Inventory, two additional fields have been added within the "References" section of the Excel template:

- **Start/End Monitoring Year:** The year when the resource started to be monitored or when the monitoring has ended or been suspended.
- **Ancestor/Descendant Monitored Resource:** Resources that were originally monitored or that originate from the current unit.

The history of this proposal was discussed. It was agreed that these fields be added.

58. In the list of fact sheets generated by the search engine, the Reporting Year is displayed. The possibility of its removal (but would remain visible in the actual fact sheet) was discussed. It was decided not to remove it but rather to examine exhaustive scenarios on affects of removal before taking action.

**Decision:**

- This section will be integrated in the Standards section of the IMP, as part of the Marine resources data dictionary.

**b. Quality assurance related to information on Resources/stocks Assessments<sup>3</sup>**

59. The recommendation of FIRMS-SC5 and SWIOFC SC4 raised the need of indicating the quality of the assessment results provided through reports and then reflected in the Excel inventories and ultimately within the FIRMS fact sheets.

60. Excerpt of SWIOFC SC4: "The committee agreed to publishing of the SWIOFC stocks inventory in FIRMS, considering that its content is based on information already provided by delegates to the Committee and published in the Scientific Committee reports. The Committee will provide information to be added in the FIRMS inventory to express levels of uncertainty associated with the assessments, together with the methods used (including e.g. "based on expert judgement")."

61. Addition of Assessment section in the Marine Resource Excel template: In response to the needs expressed by SWIOFC SC4, a proposal is hereby made for enabling the submission of information on Assessment Methods in the Excel Marine Resource template. Data model implications are also explained. Various problems associated with an assessment quality indicator were discussed and various options were explored.

62. Beyond the existing template, two options are suggested concerning the addition of the "Empirical Assessment".

**Option 1:** a simplified scenario in which the "Expert Judgment" is a fixed alternative, integrated as part of the Assessment Models under the Assessment Methods section. In this case the "Judgment" is described through a title and a description. The title is used to indicate which is the basis for such expert judgment.

**Option2:** an advanced scenario in which an "Empirical Assessment" section is established parallel to the Assessment Models section, in order to consider the "Expert Judgment" only one of the possible empirical methods. Type, Title and Description are therefore available for a more exhaustive overview.

63. FSC agreed that adding a qualitative descriptor of uncertainty may be difficult. Some Partners (eg. ICCAT, ICES, NAFO) can only contribute published information, which often include "negotiated" wordings regarding levels of uncertainty.

64. The need for a comprehensive list of assessment methods was discussed to assist in evaluating quality of assessment.

**Decisions:**

- 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.
- The Secretariat will propose an enhanced data structure alignment between the resource and fishery data modules to better cater for the continuum.

**c. Updated Marine resources and Fisheries inventory guidelines**

65. There have been two recent workshops with RECOFI and CECAF to compile Inventories under FIRMS. Some issues have been noted and some concepts responding to the needs of activities in the tropical areas were discussed. These needs have triggered the preparation and publishing of a new version of the inventory guidelines during 2011.

66. Mr. Kossi Sedzro delivered a presentation on the modifications done on fisheries and marine resources guidelines as a result of the above mentioned process and other inputs.

These modifications affected both Excel inventory templates and Word guidelines. They pertain mostly to the Fishery module and can be summarized as follows:

- Inclusion of “Fishery life-cycle section” (“Start/End year”; “Ancestor/Descendant fisheries”) in order to store time information on the opening, closure or evolution of the fisheries.
- Modification of definitions for the following concepts: “Parent Fishery”, “Local title”, “Fishery area name”, “Management overview”, “Management system”, “Management unit”. Enhanced definitions have been included in order to reduce the difficulties encountered in inventorying data on fisheries.
- Modification of the “Management entity” section with revision of the fields “Competence/Role” and “Jurisdiction area type” which now become “Mandate/Competence/Role” and “Maritime area”.

Concerning the Marine Resource module, the definition of “Management unit” has been changed reflecting what done in the corresponding field of the fisheries guidelines.

67. Mr. Tooraj Valinassab has conveyed additional comments to the existing guidelines regarding confusing or missing terms in the vocabularies as is reflected in the wiki.

**Decisions:**

- The Secretariat will review the additional comments received during the meeting and clarify, or ask the TWG to evaluate modifications to the vocabularies
- The revised inventory guidelines described above were deemed sensible and will be integrated in the Guidelines section of the IMP.

d. **Tuna, and High Seas Deep Seas fisheries, thematic pages**  
Regional thematic pages (CECAF, SWIOFC, RECOFI, GFCM)

68. Two thematic pages were presented on tunas and the High Seas. In general, the thematic pages were well received and the meeting agreed that these initiatives be continued. The pages provide a good overview and give a good opportunity to link to other more specific pages and topics. Leadership is being sought by the Secretariat in regards to the editorial role.

69. FSC agreed to broaden the description of the thematic page to include “tuna-like” terminology. The scope of the concerned Tunas page (e.g. does this page include Scombridae) however should be fixed among tuna partners and FAO. Some queries require refinements (e.g. albacore doesn’t appear on “tuna by area”). ICCAT will lead the discussion on this issue as part of TWG.

NAFO will lead the discussion on the deep sea thematic page as part of TWG. For future thematic pages, the Secretariat will seek a partner willing to lead.

70. A link back to the thematic pages should be made from the fact sheet results list. Harmonization of the content in the right boxes linking to concerned partners might be expected.

71. In the case of the maps it was noted that they were generated from FishFinder-FI. If there are some issues with presentation of distributions they should be taken up with this FAO group.

72. FSC noted that the tabular presentation in the High Seas Deep Seas page is a work in progress seeking for enhanced user friendliness through the use of e.g. maps, but agreed that theme pages are a worthwhile addition to FIRMS.

73. Ms. Elena Balestri presented three examples of a Regional thematic page for CECAF, SWIOFC and RECOFI regions. It includes a list of countries and list of contacts with the regional map. Interest for other regional pages spanning across partners was mentioned, e.g. Mediterranean, the Black sea and the bordering Atlantic (GFCM, ICCAT, CECAF, ICES), or West Indian Ocean (SWIOFC, RECOFI, IOTC).

74. FIRMS partners indicated their strong support for continuing the development of such pages.

**Decisions:**

- The Secretariat will coordinate towards refining the scope of the existing thematic pages to ensure accuracy of the search results;
- The partners are invited to suggest new thematic or regional pages, to take editorial ownership, and/or to suggest content for such pages
- 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.
- Regional pages of interest to users would generally span across various RFBs and/or partners. The RFB related regional pages as they are today will be maintained in the restricted area, in support to FIRMS networking and working purposes.

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- On the High Seas page, it was agreed to remove “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.

#### **e. Discrepancies in Reference year**

75. The reference year and reporting year are respectively defined as:

- "The year for which the status of the target object (e.g. Marine Resource, Fishery...) has been evaluated" (FIRMS TWG2, 2008);
- "The year in which the scientific meeting (or equivalent scientific validation process) reviewed the status of the target object (e.g. Marine Resource, Fishery...) pertaining to the fact sheet" (FIRMS TWG2, 2008).

Following on FIRMS TWG2 recommendations (par. 35) and FSC5 endorsement (par. 8) the reference year value is systematically displayed beside the fact sheet title while the reporting year is shown beside the cover page, both within the fact sheet header. In addition, the reference year value is also displayed within the search results list, beside each item. With this approach, FIRMS is currently emphasizing the reference year value which is usually different from the one the partners are indicating within their original reports (the publishing year). For example, the reference year for all ICES fact sheets is calculated as “ICES publishing year minus 1” (e.g. ICES Advice 2009 produced FIRMS fact sheets with reference year = 2008). Furthermore, the reference year of the NEAFC fact sheets (describing fisheries management based on ICES assessments) is instead calculated as equal to the NEAFC year of publication. In this case reference year and reporting year coincide.

Although FIRMS is providing true and relevant information, all the above leads to confusion for fact sheet users, giving the wrong impression of outdated information and in several cases also a perception of inconsistency (e.g. ICES vs. NEAFC reports).

#### **Decisions:**

- The Secretariat will investigate reference year identification mechanisms and will propose solutions.
- The Secretariat will produce alternative scenarios for displaying the reference year within the fact sheets. Such scenarios will be then discussed by the intersessional virtual working group and eventually implemented. Disclaimer and/or definitions of reporting year and reference year should be provided in the fact sheet.
- In the list of fact sheets generated by the search engine, the year should not be displayed but would remain visible in the actual fact sheet.

## **8. REVIEW OF STRATEGIC ASPECTS: WHICH ROLE FOR FIRMS IN BROADENING GEOGRAPHIC/THEMATIC COVERAGE AND ENABLING MORE TIMELY INFORMATION (Agenda item 8)**

76. FSC6 agreed that broadening FIRMS geographic and thematic coverage is key to FIRMS success, and in this respect the Secretariat has worked on various new components. Such progress both brings new assets and raises new issues.

### **a. Enabling more timely information**

77. FIRMS is an opportunity for facilitating more timely updates and overviews of the State of World Marine Fishery Resources. CCAMLR indicated intersessionally that the current FAO Review of the State of World Marine Fishery Resources (published in 2005, and based on data to 2002) should not be used as FIRMS's primary source of fishery and resource information in the Southern Ocean. Such out of date information may potentially undermine CCAMLR's contribution to FIRMS.

78. As a FIRMS partner, FAO advised that the update of this publication is underway and will be released in early 2012. Three factors have limited the update frequency to about five years: the limited resources available, the great scale and complexity involved in the global assessment, and the fact that at a global review level, the low pace of change doesn't really justify a more frequent update. Indeed for a specific region such as Southern Ocean, where CCAMLR monitors and reports on a yearly basis on the state of resources and fisheries, the out-of-date summary in FAO's world review can be badly perceived. FAO is considering more efficient and timely ways to conduct updates of the regional sections of the world review which could build on synergies that the FIRMS partnership can offer and help to strengthen. In a web context, the update of the various regional sections of this review would not necessarily need to be synchronized, meaning that should a regional organization such as CCAMLR be willing to produce an overview of the state of marine resources within its area of competence, FAO would be willing to draw upon this in its preparation of FAO's global Review. This kind of agreement could indeed be discussed as part of FIRMS and involve other partners. In this context, FIRMS could assist in developing a relatively standard way for presenting Regional overviews which FAO could easily use for its own world publication, including, where applicable, references to more detailed and updated partners' overviews.

79. Mr. David Ramm thanked the Secretariat and FAO for having considered the issue and willing to improve the situation. Mr. Yimin Ye announced that the update of the FAO Global review will be published in February 2012 and he stressed that FAO is now looking for collaboration with mandated RFBs for producing the various sections of this review. The type of collaboration for the concerned RFB could range from being a co-editor to a reviewer. There was general agreement from the participants about the value of a living "global review web-based publication" consisting of the various regional and thematic sections of FAO's print publication, each section being updated as required, and FIRMS can provide a valuable collaboration framework for Partners to collaborate with FAO in this live publication,

### **Decisions:**

- From the near future onwards, Partners are encouraged to collaborate with FAO in updating FIRMS web-based sections of the Global review.

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- the Secretariat will modify the Global review fact sheets by integrating live links to the more detailed RFBs' fact sheets

**b. Reporting on national fisheries and resources:**

80. In addressing the NatFIRMS issue, FSC6 noted that nations may contribute information to FIRMS via RFBs. Recognising that RFB partners already interact with national members with regard to information exchange on resources and fisheries, FSC6 noted that FIRMS process may contribute to information sharing mechanisms within RFBs while strengthening member country capacities. RFB partners that collaborate with National level organizations should convey to the FIRMS Steering Committee the guidelines or requirements for publishing information that originates from these collaborations.

Some questions remained to be answered:

- It was noted that in the case of FAO Article VI RFBs, if any of these bodies start to be active in channelling national data, the member States may like to be represented, and it was unclear how this would be worked out legally.
- When, and how often the data would be updated? What kind of control mechanism will exist?

81. The experience gained with FAO RFBs (CECAF, SWIOFC, and RECOFI) during the intersession provided a number of responses to questions raised by FSC6 related to national contributions through RFBs. FAO RFBs who were involved in such process were asked to provide these perspectives, including where FIRMS constitute an opportunity to support the goals of their organization.

82. Mr. Kossi Sedzro and Mr. Said Benchoucha (for CECAF) and Mr. Karim Al-Radhi and Mr. Tooraj Valinassab (for RECOFI) delivered presentations on the process followed through their RFBs sub-committees 'for developing inventories of resources and fisheries in their respective region, including through involvement and training of national focal points in particular for the description of national fisheries, and the outputs from this process in terms of validated inventories and the rules thereby adopted by their SC.

83. These processes and their outputs are reflected in the regional pages published in the FIRMS restricted area, including the prospect of few hundreds of fisheries being published in a near future. Mr. Tooraj Valinassab and Mr. Karim Radhi presented progress on inventories of resources and fisheries occurring within RECOFI Iranian and Bahrainian waters. RECOFI requested more assistance from the Secretariat for completing the inventories.

84. Mr. Yimin Ye reported that a similar process had taken place with SWIOFC, and as a result 120 marine resources have been validated for publication through FIRMS.

85. The participants agreed that the process and outputs presented through these experience seemed sound. Some questions were raised about the quality of some fisheries fact sheets content, as well as confidentiality aspects. Such questions pointed out that the final publishing process will have to rely on clear responsibilities.

Mrs Nuanalong Tongdee inquired about the applicability of such process in the case of SE Asia, in the context where SEAFDEC has no regional assessment nor management responsibilities.

86. It was agreed that a standard protocol regarding the involvement of nations through RFBs will have to be developed by the Secretariat in order to constitute a FIRMS generally agreed framework for similar developments in other regions / situations. General principles that would constitute the basis for such protocols were discussed and agreed as follows:

- The nations' involvement model developed within CECAF was deemed sound, for both Resources and Fisheries inventories. Such model, which implies that the information handled corresponds to the RFB's mandate, and which would hence ensure that no conflicting information exists between the national and the regional levels, should be applied in other similar situations.
- Information on the state of Resources should be primarily handled at regional level, through RFBs having clear scientific Resource assessment and/or management mandates; in such scenario, RFBs have their internal collaboration and peer review processes among nations that aim at ensuring consistency among member countries.
- Information on Fisheries (concerning fishing activity, fleet segments, management) which are of a strict national nature could be handled through any RFB being a FIRMS partner, even in the absence of a scientific resource assessment or management related mandate. This RFB would retain regional corporate ownership (hence overall responsibility for the disseminated content) while direct responsibility and ownership for content would be assigned to designated national focal points.

**Decisions:**

- The Secretariat will develop standard protocols addressing the involvement of Nations through RFBs, for review by the TWG
- 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

**c. Reporting on fisheries management:**

87. FIRMS has set up information standards for reporting on Fisheries Management, and reporting models have been developed. The value of these models should be reviewed, and partners should provide guidance regarding how such Management information should be exploited in FIRMS.

88. During the intersession, a set of "management" fact sheets have been published by NEAFC: one overarching fact sheet presents the NEAFC's management system, and introduces seven Fishery management unit fact sheets. CCAMLR and NAFO are also developing similar fact sheets at various stages of progress. Management information can also be found in Fishing activity fact sheets produced by CECAF and RECOFI, and in more loosely organized and limited ways in various resource fact sheets (e.g. ICCAT, ICES, GFCM).



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89. NAFO and NEAFC felt that publishing Management frameworks and measure is an important initiative. They and CCAMLR are reorganizing their web sites and will consider how to articulate their own needs with such information. The group agreed that such information in FIRMS has value considering known requirements from other initiatives such as the VME database, or those expressed by interests groups such as Ocean Trust and its Science and Sustainability forum.

90. It was felt that the NEAFC's Management System overarching fact sheet could be interpreted as a thematic page. Further discussion led the group to propose a thematic page on the theme of "science to management process in the North Atlantic". This page would exploit the availability of a rich set of resource assessment and fisheries management information in this area (NAFO, NEAFC, ICES, ICCAT, DG MARE, GFCM). This idea received an enthusiastic support (refer also to agenda item 7d).

91. Other points were raised: DG MARE was called to consider participating to such fisheries management pages; in NEAFC's fact sheet where reference is made to ICES scientific advice, the terminology should be changed to "Assessment advice provided by ICES". A standard section "Long term plans" should be added in the Management fact sheets template.

**Decisions:**

- 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.
- The Secretariat will implement the various modifications requested above.

**d. Which role for FIRMS regarding reporting on socio-economic status of fisheries:**

92. Although socio-economic information is not specifically identified as presently being within the scope of the FIRMS partnership arrangement, reference to information which provides background to fishery management advisory reports gives insight that reporting on fisheries socio-economic information could further FIRMS objectives.

93. DG MARE's expressed interest in cooperation by contributing aggregated socioeconomic reports on the European fleets. Such positive intention might be an opportunity to kick-off a new reporting work stream, which FIRMS partners are called to consider.

94. Following the temporary freezing of EC's participation through Eurostat in the FIRMS partnership arrangement, DG MARE has recently indicated (Sept 2011) its willingness to contribute socio-economic data on the European fleets on the condition that member states agree and that similar data are provided by non-EU fleets. DG MARE's participation in FIRMS could constitute a starting point to enhance FIRMS capacity on the Ecosystem Approach; it would boost the development of international Metadata standards in the socio-economic field.

95. An issue for FSC debate is how this condition of reciprocity can be met in a context where countries cannot be direct members of FIRMS. Therefore a confirmed interest could constitute a push towards NatFIRMS. If requested, the FIRMS information system architecture is fit for such purpose. Case studies were developed through the World Bank-FAO Big Number Project and one of these is disseminated through FIRMS (Senegal fishery sector <http://firms.fao.org/firms/fishery/472/en>).

96. A presentation on economic data collected and analysed by DG MARE was given by Mr. Angel Calvo-Santos (EU). He indicated that the data collected under the Data Collection Framework (DCF) provided a solid basis for scientific analysis of fisheries and support to scientific advice in the framework of the Common Fisheries Policy and demonstrate economic implications for the fishery resources. Models and statistics (trends in landed value by species and gears for example) were presented to illustrate what types of economic information is available. It was noted that data are only made public on an aggregated basis due to issues of confidentiality, but the main economic indicators were available. It was noted that data are only made public on an aggregated basis due to issues of confidentiality and provisions of the DCF, but the main economic indicators were available in the Annual Economic Report of the EU fishing fleets. It was noted that that the DCF deals only with data from EU fleets and thus there are gaps pertaining to fleets from other countries fishing the area. It was suggested that FIRMS could seek other sources to fill the gaps. Presently, the FIRMS partners do not collect economic data. It was noted that the DG Mare scope includes industrial and artisanal fisheries. Aggregated data are currently available in various published reports and similar information could be provided to FIRMS. Economic indicators could be associated, as a proxy, by métier or stock and linked with management and biological aspects, price by species, by gear for example.

97. Few FIRMS partners indicated that they collect socio-economic data. Mr. Mike Batty indicated that WCPFC has prices. NEAFC strives to understand the total value of a fishery. Through its fisheries socio-economic programme and with the support of Projects, FAO is probably the only partner which could at this stage complement DG MARE's information.

98. FSC encouraged partners to develop some case studies by which the rich source of EU socio-economic data available (50.000 data records on various indicators, by métier and fleet segment – including for distant water fisheries) will be formatted in ways that complement biological and management information already available in FIRMS – FSC identified a case study of interest to ICCAT (tropical Tuna and Bluefin tuna), to NEAFC and ICES (some pelagic fisheries in North East Atlantic), and possibly West Africa (EU vessels operating under fishing agreements). DG MARE will investigate the feasibility of making socio-economic data available for supporting such case studies or others during 2012.

99. An example was shown within FIRMS of how the economic data might be presented. A fishery indicators table for Senegal included information on employment, fishing capacity, production, utilization and economic performance, based on aggregated data.

**Decisions:**

- 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.

**e. Practical steps towards NatFIRMS:**

100. NatFIRMS would constitute a vehicle towards more comprehensive coverage by including national fisheries. As a starting point, FAO is proposing to articulate NatFIRMS (i.e. contributions received on stocks and fisheries status by countries outside of the FIRMS framework) with its Fisheries and Aquaculture Country Profile programme. Inputs there could include voluntary contributions from specific countries, or collaborations with groups such as FishBase.

101. With reference to the overarching principles which FSC6 agreed upon in relation to NatFIRMS, in particular that the hypothetical NatFIRMS would be set-up as a separate framework (albeit with close interactions with FIRMS), it was clarified that FSC was only requested to provide guidance regarding the opportunities for NatFIRMS presented by FAO.

102. 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.

103. FIRMS partners having vested interest in promoting NatFIRMS (in particular because such information would provide a more complete picture of the situation of fisheries in their regions) were encouraged to promote FIRMS, and the NatFIRMS idea, as well as to feel concerned about the associated extra-budgetary fund raising aspect.

104. Mr. Thor Lassen of Ocean Trust made a presentation by WebEx. He informed FSC about a Science and Sustainability Forum to be held in Washington DC Feb. 29-Mar.2. This workshop will deal with science-based guidance on stock status and fisheries management/sustainability, enhancement of public recognition/acceptance of management by management authorities and lastly, establishment of public tools to access competent science authorities: web portal/national labels. In this respect, Mr Lassen indicated that FIRMS is viewed as a reliable source of information on both resources status and fisheries management. The question was asked whether there was anything that could go into the resource or fishery sheets in relation to sustainability.

**9. TARGET AUDIENCE AND COMMUNICATION STRATEGY (Agenda item 9)**

105. Now that FIRMS is fairly well established, FSC agreed that decisions have to be made about how to expand FIRMS audience and usage (see Annex 4). The web trends show improvement but the indications are that viewers are not staying in the

site. Tina Farmer (FAO) suggested that a formal strategy on communications needs to be developed. One of the first steps would be to identify the target audience in order to determine what type of message needs to be communicated. Once a common understanding is established priorities can be set using clear FIRMS branding. Short and long term goals should be decided. After deciding on the target audience the various routes to disseminate information can be investigated (graphic, text, social networking).

106. It was agreed that FIRMS mission statement was clear but less clear who the message should be addressed to. It was noted that there had been a project formulated (but not selected) under EU's FP7 framework called KBBE involving ICES and FAO on how to convey more practical information to seafood practitioners and to consumers. It was agreed that FIRMS should be a place to obtain up-to-date fishery authoritative information. It was agreed that a wiki could be established and discussion regarding target audience and type of information to be presented could be conducted here. Partnerships can be encouraged to create useful tools that could be available through a toolbox on the FIRMS site where the various types of information could be made available to Partners. Some examples would be posters (already available), presentations and handouts. Opportunities for dissemination of information on FIRMS may be at various meetings of Partners Organizations (ie Annual meetings, symposia), at independent scientific and management conferences, fishery exposition and at other public events (Oceans Day).

107. It was also agreed that the FIRMS homepage could be better exploited to lead users more easily to specific fact sheets. As well the name of FIRMS may be, in fact, limiting (Fishery Resource Monitoring Systems) 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. Suggestion were:

- **Fisheries and Resources Monitoring System** or
- **Fishery Information and Resources Monitoring System**

Attention will also have to be brought to the scope (e.g. is it limited to "Marine").

This will also be included in the wiki for further discussion and decision at the next meeting of the FSC.

108. Various opinions were expressed regarding FIRMS target audience. Mrs Marshall indicated that it would be NAFO's contracting parties, and that communicating to them should be associated with promoting NatFIRMS. Other opinions ranged from general public, students, seafood practitioners, or information managers interested by concepts and definitions.

109. FIRMS uniqueness was discussed as being its capacity to bring together various sources of authoritative, evidence based information, at Global level and with complementary perspectives. Whereby various sources of information might be available on resources, FIRMS would constitute a unique opportunity to develop a compendium of Management information on fisheries.

#### **Decisions:**

- A communication strategy will be iteratively developed through the FIRMS Wiki, and FIRMS partners will be invited to contribute.
- The FIRMS home page should be made more dynamic and informative from the perspective of users expectations.

- 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.

## **10. FIRMS INFORMATION MANAGEMENT POLICY (IMP) (FIRMS FSC6/2010/Inf.3) (Agenda item 10)**

110. FSC tasked the Secretariat will updating the FIRMS IMP to reflect the decisions made during this meeting.

### **Decisions:**

- The IMP will be updated as agreed in decisions of agenda item 7.

## **11. INTERSESSIONAL WORK PLAN (Agenda item 11)**

111. FSC discussed the operations of the TWG during the intersession. TWG is planned to meet once every quarter through video-conferencing with rotating schedule in order to accomodate different time zones among partners. The first session has been scheduled for the second week of March. Each TWG session will then schedule the next meeting. The Secretariat was requested to prepare the agenda and material for the TWG virtual meeting sufficiently in advance. The list of TWG members will be reviewed and reflected on the FIRMS contact page. It will include FAOs RFB's associate partners (CECAF, RECOFI and SWIOFC) and representatives of observing organizations involved in the development of case studies. NAFO offered to host the WebEx.

112. With reference to the list of activities which was prepared by the Secretariat before the meeting (see FSC7/2011/2), and taking into account FSC's inputs, a road map of priority activities during the coming intersessional period has been agreed upon below. Faced with a reduced budget and uncertainty regarding extra funding resources, the road map concept implies that the activities listed below will be implemented on an available effort basis, and according to agreed priority levels (those are indicated in brackets).

### **GENERAL**

- (1) Following up with TWG coordination and inputs as decided at FSC7.

### **ENHANCEMENT OF FISHERY AND MARINE RESOURCE MODULES**

(1) Workflow management: finalizing the Excel-to-XML converter tool, (2) improving the CMS.

(1) Improving overall site layout (e.g. home page, search results list, etc.).

Improving fact sheet modules and web site applications according to FSC7 feedback (e.g. Continuum issues including (1) the joint search interfaces, FIRMS description, (2) the alignment of the two modules).

Creating/Improving interactive maps (e.g. (1) data coverage maps as informative user query interfaces, (2) stocks and fisheries maps viewer with fact sheets access, (3) multiple layers maps for marine resources/stocks, fishing activity areas, EEZs, partners area of competence, species distribution, etc.).

(2) Implementing ontology driven navigation among fact sheets.

### **DEVELOPMENT OF PAGES AND PRODUCTS AIMING AT DIVERSIFIED AUDIENCE**

(1) Thematic pages: revision and finalization of the existent global and regional pages and creation of new ones as per FSC7 inputs.

Implementing spatial and temporal representation of FIRMS database: (1) data coverage maps.

### **TRAINING / ASSISTANCE TO PARTNERS**

(1) Routine remote assistance to established partners.

(1) *Ad hoc* trainings for data submission and Word/Excel-to-XML converter tools.

(2) Follow-up to Observers (*e.g.* case studies to DG MARE, SPC, SPRFMO, NAMMCO).

Organization of (1) at least one regional workshop (SWIOFC), and (2) liaison with the RECOFI secretariat for a similar workshop, provided funding is identified.

### **PROMOTION OF FIRMS**

Secretariat responsibilities

(1) Seeking donors support.

(1) Coordinating the development of a communication strategy towards the adoption of a communication plan shared by FIRMS Partners.

(2) Producing posters, brochures and other promotional products (*e.g.* power point presentations) for partners' utilization.

Partners' responsibilities

(1) Communicating on FIRMS progress and NatFIRMS at Partners' meetings.

(1) Promoting links to the FIRMS website from national agencies websites.

(1) Disseminating FIRMS fact sheets from Partners' website.

(1) Seeking donors support.

### **BROADENING OF THE FIRMS COVERAGE**

(1) Securing the publication of fact sheets of partners currently involved.

## **12. PLANNING FOR THE EIGHTH SESSION OF FSC (FSC8) (Agenda item 12)**

113. FSC agreed that the current cycle of meeting every 1.5 to 2 years was appropriate and necessary to maintain the development of FIRMS. Further efficacy of meeting in conjunction with CWP was recognised, and FSC agreed to continue meeting back-to-back with CWP when possible.

114. The FIRMS Steering Committee agreed to hold its next meeting during the first week of February of 2013 either in Rome or in conjunction with the 24<sup>th</sup> meeting of the CWP at a venue to be decided.

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### **13. OTHER BUSINESS** (Agenda item 13)

115. The Chair reported on the FAO Vulnerable Marine Ecosystems (VME) Database Workshop that was held at the headquarters of the GFCM 7-9 December. The workshop was attended by CCAMLR, NAFO, NEAFC, the emerging SPRFMO and NPRFMO, the fishing industry and various national agencies. The workshop discussed the requirements for a global database and information system on VMEs and associated areas in high seas deep-water areas. This information system is specified in the UNGA resolution 61/105, and general guidelines for its development are provided in that resolution and have been subsequently expanded in FAOs international guidelines for the management of deep-sea fisheries in the high seas and associated workshops and expert consultations.

116. The VME database will capture information on VMEs and associated areas which have been identified by regional fishery management organisations or arrangements (RFMO/As) and other multi-lateral organisations such as CCAMLR, and VME-related data from areas which are not presently under the jurisdiction of a RFMO/A. In areas under the jurisdictions of a regional body, the VME database would assist in outreach, transparency and global awareness, as well as provide comparative regional information on VMEs, identification criteria, move-on rules and VME categories, and management approaches. In high seas areas beyond such jurisdictions, the VME database will aim to gather fishery-independent survey data and fishery fine-scale data (provided by various agencies, Flag states and/or industry) which may lead to the identification of VMEs.

Several data elements were identified including links to management measures and the group agreed that output would look similar to FIRMS factsheets. There would also be some numeric data contained within the database. FSC noted that there could some strong links between the Fishery and Marine Resource modules. Several case studies were established by the VME group, including several FIRMS partners such as NAFO, NEAFC and CCAMLR. It was noted that there are strong connections with the FIRMS model, and that the FIRMS partnership should be kept informed regarding the progress made and requirements for sustainability frameworks.

### **14. ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON** (Agenda item 14)

117. FSC agreed to extend Mr. Michael Hinton's (IATTC) term as Chairperson to the next meeting. FSC welcomed Ms. Barbara Marshall (NAFO) as the incoming Vice Chairperson.

### **15. ADOPTION OF THE REPORT AND CLOSE OF SESSION** (Agenda item 15)

118. The report was adopted on 16 December 2011 at 12:10 hours. The Meeting was closed. The participants expressed their thanks to FAO and the FIRMS Secretariat for their hospitality and a well-resourced meeting.

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**Rapporteur**

Mr. David Kulka

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**Annex 2**  
**Meeting annotated Agenda**

**MEETING PLACE: NIGERIA ROOM**

**Monday, 12 December 2011**

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

- 1. Opening of session and Welcome address**
- 2. Adoption of agenda**
- 3. FIRMS membership**
  - Progress on the development of FIRMS Partnership
  - Review of new perspective Partners
- 4. Review of Annex 2 of new or existing Partners**
- 5. Review of FIRMS activities during the intersession** (cf Docts. FIRMS FSC7/2011/2a-i)
  - Report on intersessional activities
  - Key topics regarding status of the FIRMS website
    - Marine resources module:
      - progress on populating the site
    - Fisheries module: progress and outstanding issues
      - management information in FIRMS
      - fishing activity information in FIRMS – FAO RFBs contributions
    - Homepage and thematic pages
      - home page – communicating better
      - thematic pages on Tuna and on deep sea (high seas) demersal resources
      - regional thematic pages on FIRMS activities in CECAF, RECOFI, SWIOFC areas
    - Mapping component
      - enhanced dynamic maps within fact sheets
      - FIRMS data coverage maps
- 6. The Resources-to-Fisheries continuum - or seeking the right compromise between information management constraints and an intuitive user interface**

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## 7. Report of virtual technical working group<sup>1</sup>

- a. Proposed standard for handling “Monitoring cycles of Marine resources”<sup>2</sup>
- b. Quality assurance related to information on Resources/stocks Assessments<sup>3</sup>
- c. Updated Marine resources and Fisheries inventory guidelines<sup>4</sup>
- d. Tuna<sup>5</sup>, and High Seas Deep Seas<sup>6</sup> fisheries, thematic pages Regional thematic pages (CECAF, SWIOFC, RECOFI, GFCM)

**Tuesday, 13 December 2011**

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

## 8. Review of strategic aspects: which role for FIRMS in broadening geographic/thematic coverage and enabling more timely information

- a. Enabling more timely information
- b. Reporting on national fisheries and resources:
- c. Reporting on fisheries management:
- d. Which role for FIRMS regarding reporting on socio-economic status of fisheries:
- e. Practical steps towards NatFIRMS:

## 9. Target audience and communication strategy

## 10. FIRMS Information Management Policy (IMP) – FSC6 version

## 11. Intersessional work plan

## 12. Planning for the seventh session of FSC (FSC8)

## 13. Any other business

## 14. Election of Chairperson and Vice-Chairperson

**Friday, 16 December 2011**

morning: 10:00 hours to 12:00 hours

## 15. Adoption of the Report and Close of Session

For each, see Main page, and Discussion page, at:

<sup>1</sup> <http://km.fao.org/FIGISwiki/index.php/FIRMS><sup>2</sup>

[http://km.fao.org/FIGISwiki/index.php/Talk:Marine\\_Resource#Monitoring\\_cycles\\_of\\_marine\\_resources](http://km.fao.org/FIGISwiki/index.php/Talk:Marine_Resource#Monitoring_cycles_of_marine_resources)

<sup>3</sup> [http://km.fao.org/FIGISwiki/index.php/Talk:Marine\\_Resource#Quality\\_assurance\\_related\\_to\\_information\\_on\\_Resources.2Fstocks\\_Assessments](http://km.fao.org/FIGISwiki/index.php/Talk:Marine_Resource#Quality_assurance_related_to_information_on_Resources.2Fstocks_Assessments)<sup>4</sup> [http://km.fao.org/FIGISwiki/index.php/FIRMS\\_Inventory\\_Guidelines\\_and\\_Templates](http://km.fao.org/FIGISwiki/index.php/FIRMS_Inventory_Guidelines_and_Templates)<sup>5</sup>

[http://km.fao.org/FIGISwiki/index.php/FIRMS\\_on\\_Tuna\\_thematic\\_page](http://km.fao.org/FIGISwiki/index.php/FIRMS_on_Tuna_thematic_page)<sup>6</sup>

[http://km.fao.org/FIGISwiki/index.php/FIRMS\\_Deep\\_Seas\\_High\\_Seas\\_thematic\\_page](http://km.fao.org/FIGISwiki/index.php/FIRMS_Deep_Seas_High_Seas_thematic_page)

## Annex 3

<b><u>Provisional List of documents</u></b>	
<b>FIRMS FSC7/2011/1</b>	<b>Provisional Agenda and Timetable</b>
<b>FIRMS FSC7/2011/2</b>	<b>Review of the FIRMS activities during the intersessional period</b>
FIRMS FSC7/2011/2a	Secretariat report on Progress and Issues
FIRMS FSC7/2011/2b FIRMS FSC7/2011/2c FIRMS FCS6/2011/2d FIRMS FCS6/2011/2e FIRMS FCS6/2011/2f FIRMS FCS6/2011/2g FIRMS FCS6/2011/2h FIRMS FCS6/2011/2i	Partners reports: <a href="#">ICCAT</a> <a href="#">CCSBT</a> <a href="#">CCAMLR</a> IOTC SEAFDEC ICES GFCM <a href="#">NAFO</a>
<b>FIRMS FSC7/2011/3</b>	<b>Documents relevant to the virtual Technical Working Group</b>
FIRMS FSC7/2011/3a	<a href="#">Proposed standard for handling "Monitoring cycles of Marine resources" (status of wiki page: TWG review rounds documented)</a>
FIRMS FSC7/2011/3b	<a href="#">Quality assurance related to information on Resources/stocks Assessments (status of wiki page: work in progress towards submission to TWG)</a>
FIRMS FSC7/2011/3c	<a href="#">Updated Marine resources and Fisheries inventory guidelines (status of wiki page: work in progress towards submission to TWG)</a>
FIRMS FSC7/2011/3d	<a href="#">Review of FIRMS thematic pages: Tuna (status of wiki page: TWG review rounds documented)</a>  <a href="#">High Seas Deep Seas fisheries (status of wiki page: TWG review rounds documented)</a>  Regional thematic pages ( <a href="#">CECAF</a> , <a href="#">SWIOFC</a> , <a href="#">RECOFI</a> , GFCM) (status of wiki page: work in progress towards submission to TWG)
FIRMS FSC7/2011/3e	<a href="#">Proposal for handling data on vessels and local fleet classifications in the Fishery inventory (status of wiki page: work in progress towards submission to TWG)</a>

<b>FIRMS FSC7/2011/4</b>	<a href="#">Review of strategic aspects: which role for FIRMS in broadening geographic/thematic coverage and enabling more timely information</a>
<b>FIRMS FSC7/2011/5</b>	<a href="#">FIRMS Target audience and communication strategy</a>
<b>FIRMS FSC7/2011/6</b>	<a href="#">The Resources-to-Fisheries continuum</a>
<b><u>Information documents</u></b>	
<b>FIRMS FSC7/2011/Inf.1</b>	<a href="#">Provisional List of Documents</a>
<b>FIRMS FSC7/2011/Inf.2</b>	<a href="#">Provisional List of Participants</a>
<b>FIRMS FSC7/2011/Inf.3</b>	<a href="#">FIRMS Information Management Policy (IMP) – FSC5 version</a>
<b>FIRMS FSC7/2011/Inf.4</b>	<a href="#">FIRMS Partnership Arrangement</a>
<b>FIRMS FSC7/2011/Inf.5</b>	<a href="#">Standard template for reporting on FIRMS activities</a>
<b>FIRMS FSC7/2011/Inf.6</b>	<a href="#">Report of the sixth Session of the FIRMS Steering Committee Meeting. Hobart, Australia, 24 – 26 February, 2010</a>
<b>FIRMS FSC7/2011/Inf.7</b>	<a href="#">FIRMS web trends statistics over the period 2007-2011</a>
<b>FIRMS FSC7/2011/Inf.8</b>	<a href="#">FIRMS Steering Committee Rules of Procedures</a>
<b>FIRMS FSC7/2011/Inf.9</b>	<a href="#">Science &amp; Sustainability Forum – Feb. 2012 - Proposed participants &amp; sessions.</a>



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## Annex 4

### Benefits that FIRMS membership will provide to its members

(Source – FSC6 meeting report)

#### **At a political level:**

FAO member countries through COFI, and UN members through the UN General Assembly, have made commitments to the Strategy-STF<sup>3</sup> and their willingness to adhere to principles of good fisheries governance based on the best scientific knowledge available. Reporting status and trends of resources and fisheries demonstrates countries' compliance with such commitment, and FIRMS offers an enabling framework.

As well, the 2006 UN Review Conference on Straddling and highly migratory Fish Stocks recommended that States individually or collectively through RFMOs should cooperate with FAO in the implementation and further development of the Fisheries Resources Monitoring System (par. 18(j))”

#### **At a strategic level:**

In FIRMS, a regional Partner can be part of a subject group and contribute together with other interested partners knowledge or status and trends on target species. As example, the five Tuna agencies together can provide comprehensive information on state of world Tuna resources and fisheries.

Such comprehensive information can be recycled recycling this information in the Tuna network context.

FIRMS RFB partners have understood the benefits of FIRMS reporting mechanisms. Fact sheets are communication products which:

- provide essential information, while for full details link to electronic sources;
- allow better searchability on the internet including through full text and controlled terms; a presence in FIRMS increases the profile of RFB reports, as well as the visibility of their work on the internet;
- can be merged and enriched with other sources of information such as catch statistics, or multidisciplinary maps;
- constitute a dynamic reporting featuring ability to maintain time series of reports as information becomes available;
- enable the development of new products, such as maps, statistics, or synoptic views (eg Status and Trends summaries)

With NatFIRMS process, there is also a golden opportunity for a number of regional partners with “national burden” to improve their data, increase their influence and eventually strengthen their role, thus largely compensating the burden.

<sup>3</sup> FAO Strategy-STF: FAO strategy for improving information on status and trends of capture fisheries

NatFIRMS would also be a golden opportunity to improve their members' responsible involvement, fostering an improvement of national systems and of their participation in a regional mechanism.

**At a technical level**, a number of FIRMS RFB partners have understood that their accession to FIRMS enable leveraging their own information management capacities. The FIRMS technology opens perspectives of recycling information products contributed to FIRMS within RFB's branded products, thus serving primarily data owners interests.

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