

FIRMS Technical Working Group e-Meeting
Fifth session, 3rd part
Online, 27 October, 2016
REPORT
Author: FIRMS Secretariat

OPENING OF SESSION AND THE WELCOME ADDRESS

1. The Fifth Session of the FIRMS Technical Working Group (TWG) e-meeting (third part) was opened by Mr Gentile, at 17.00 hrs., Rome time (CET, UTC+2) on Thursday 27th of October 2016. He welcomed the representatives of the following agencies: IATTC, ICES, NAFO, and WECAFC/NOAA. Mr M. Hinton (IATTC) and Mr P. De Bruyn (ICCAT) also expressed their intention to participate but last minute commitments prevented their attendance.
2. Ms Nancie Cummings, FIRMS chairperson, welcomed the participants and recalled the latest activities of FIRMS in 2016. In particular, CCSBT provided an updated status for the Southern Bluefin tuna, IATTC updated 8 stocks and 1 fishery, ICCAT updated three stocks (Bigeye tuna, Blue shark North Atlantic, Blue Shark South Atlantic), NAFO updated 7 stocks and 1 fishery, SEAFO provided new information on Deep-sea red crab and Patagonian toothfish, WECAFC published 20 new fisheries fact sheets for six countries. Work is in progress for GFCM (31 stocks) and CECAF (about a hundred stocks). The above mentioned published fact sheets can be accessed from the "Latest news" box in the FIRMS home page <http://firms.fao.org/>.

ADOPTION OF THE AGENDA

3. The agenda was presented and adopted (See Annex 2).
 - FIRMS Stocks & Fisheries map viewer, toward its finalization

- Traffic light approach for the FIRMS State & Trend standard indicators, a further implementation for review
- Introducing the notion of “Assessment Unit” in the FIRMS data model
- Any other business

FIRMS Stocks & Fisheries map viewer, toward its finalization.

4. Mr Gentile presented the latest version of the FIRMS Stocks and Fisheries map viewer, available in development environment at <http://figisapps.fao.org/figis/geoserver/factsheets/firms.html>, see also a screenshot example in Annex 3. In particular, improvements were made according to TWG 5 recommendations (February 2016): 1) easing navigation among marine resources and fisheries categories, 2) improving place marks and icons, 3) improving clustering mechanism for multiple marine resources and fisheries, 4) providing export facility, and 5) providing share & embed link facilities. It was stressed that a first version of the map viewer could be released, upon partners' approval, before the end of the year. Participants were encouraged to share the link with colleagues for any further feedback. It is expected that a few more improvements will take place in the coming weeks including the display of icons in the info pop-up to zoom to stock/fishery location, to retrieve related marine resources and fisheries (when available) and to view the fact sheets in full (see also Annex 4).
5. Ms Osypchuk (ICES) expressed the intention to share the link provided with colleagues, and asked clarifications on the search mechanism.
6. Mr Gentile explained that, at present, the user is enabled to run a full-text search throughout all the fields of the fact sheets. The search result is therefore a list of fact sheets for which the keyword is encountered. In particular, the top results in the list are those fact sheets for which the keyword is found within the title.
7. Ms Cummings (WECAFC) expressed her agreement for the map viewer to be released soon and added that more comments and feedback is to be expected by the users themselves.
8. In general, all participants showed appreciation for the work done and were keen towards the release of the FIRMS Stocks & Fisheries map viewer.

Traffic light approach for the FIRMS State & Trend standard indicators, a further implementation for review.

9. Mr Gentile presented the implementation of the latest recommendations made in February 2016 (TWG5) regarding the traffic light approach for the FIRMS State and Trend standard indicators. The relative documentation is stored and available at http://figisapps.fao.org/FIGISwiki/index.php/FIRMS_Fishery_Resources_Standard_descriptors_for_State_and_trend#Traffic_light_approach (login required), see also examples in Annex 5. The attention was particularly stressed on the implementation of the two color icons and relative mapping rules to the State and Trend standard indicators, and the disclaimer that would accompany the display of the underlying explanatory matrix.
10. The group welcomed the work done and there was a general agreement to move towards the finalization and release of the traffic light approach.
11. Ms Marrow (IATTC) asked why the yellow icon was removed.
12. Mr Gentile explained that during the TWG5 the partners decided to adopt the two-color scheme because the yellow icon associated to the term “Fully fished” can be subject to misinterpretation or misuse. Mr Gentile further clarified that the traffic light icons will be displayed in the fact sheets upon specific request from the partners. Even if released publicly, the next FIRMS Steering Committee will give the final approval to the traffic light approach.
13. Ms Osypchuk (ICES) showed appreciation for the work done. She added that ICES is currently updating their web facilities, a tool that could be used by FIRMS to update the fact sheets automatically. Within this framework, the traffic light approach would be easily activated.
14. Ms. Marrow (IATTC) expressed her appreciation and intention to discuss the traffic light approach with IATTC scientists before its activation.
15. Ms Bell (NAFO) confirmed that the traffic light icons can be activated within the NAFO fact sheets.
16. Mr Blasdale (NAFO) noted that the “State and Trend Descriptors” table in the FIRMS fact sheets is showing the state of a resource in the reference year, but no trends. He

further suggested to complement the table by including multiannual series of State and Trend values.

17. Mr Gentile welcomed the comment and suggested to have a dedicated item on this aspect for a next meeting. He further clarified that FIRMS is currently offering the facility to keep track of time series of state and trend indicators. This information can be accessed through the “Related Observations” button available in the fact sheets (when partners leave the previous reports in a published status). In addition, the Biological State and Trend section is also providing a narrative section to accompany the “State and Trend Descriptors” table.

Introducing the notion of “Assessment Unit” in the FIRMS data model

18. Ms Giulia Gorelli conducted this agenda item with the support of slides (see Annex 6). The presentation started by recapitulating the current FIRMS data model for the description of stock structure, stock assessment units and management units.
19. The descriptors “Considered a single stock” was introduced with TWG1 in 2005, and this formulation was adopted to include the true biological stocks and the units or populations that are assumed as stocks for the purpose of stock assessment, which we are now referring to as assessment units. The assessment units can be decided on the basis of best available knowledge when the stock structure is not completely clear or also on the basis of practical convenience.
20. A quite extensive discussion aroused recently around the use of “considered a single stock”, especially within FIRMS recent work with the Global Record of Stocks and Fisheries (a task of the EU funded project BlueBRIDGE) and also while updating FIRMS inventories for two FAO bodies, GFCM and CECAF.
21. In example, in case of GFCM, by acknowledging the notion that most of their stocks cannot be considered neither biological stocks nor single stocks, with the current data model, there is no way to indicate that these stocks are treated as “assessment unit” (and not simply as “marine resources”) and handled as management unit.
22. To fill this gap and to avoid possible inconsistencies in the database (some partners are referring to biological stocks, others to assessment unit), the FIRMS data model might be enriched by introducing a clear distinction between the concept of biological stock and that of assessment unit.

23. “Considered a single stock” would be renamed as “Biological stock” with values “Yes, No, Uncertain” (this implies a revision of the current values as this has already started in case of GFCM and CECAF), a new descriptor would be introduced “Assessment Unit” with values “Yes, No”. The descriptor “Management Unit” complement the information on stock definition somehow minimizing mismatches between true biological stocks and traditionally perceived management areas.
24. The proposal was well received, ICES suggested to provide updated definitions for each descriptors and to cross check with ICES complex stocks.
25. Ms Marrow (IATTC) highlighted that assessment units may change across time and that stocks are not assessed every year and this should be reflected. In this regard it was noted that such descriptors are associated to the reference year value of the fact sheet.
26. Ms Cummings (WECAFC) highlighted the need to understand how these descriptors can be used by users and for what purposes (e.g. to filter the amount of marine resources for which a stock assessment has been conducted).
27. The group concluded that an advanced proposal with details and examples should be compiled by the FIRMS Secretariat to be circulated among partners and discussed at the next TWG e-meeting.

Any other business

28. Mr Gentile informed the group about “SmartForms”, a mobile app to collect and review fishery data, integrated with a hub for data management and a forms builder for customization. The development of the app is in progress and it will be released as a FAO corporate application (from an IT viewpoint), an open source version is also expected. Several potential business cases have been collected, including Bahamas IUU fishing, Recording of VME Taxa in SEAFO Area, Recording of Sharks, fragile benthos in South Indian Ocean, FAO Somalia - Artisanal fisheries. The Secretariat will further inform about the development and when the application is available.
29. No other topics were discussed.
30. The meeting was closed at 6:20 p.m.

ANNEX 1

LIST OF PARTICIPANTS

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ANNEX 2 - ANNOTATED AGENDA AND TIMETABLE

FIRMS Technical Working Group e-Meeting
Fifth session, 3rd part
Online, 27-10-2016
PROVISIONAL ANNOTATED AGENDA AND TIMETABLE
Author: FIRMS Secretariat

From 17:00 hours to 18:00 hours Rome time (CET, UTC+2)

- 1. Opening of session and introduction**
- 2. Adoption of agenda**
- 3. FIRMS Stocks & Fisheries map viewer, toward its finalization**

*The development of the FIRMS Stocks & Fisheries map viewer is related to FSC9 decision D9.4, in the context of renewing the FIRMS website. The secretariat implemented the recommendations made at the TWG5 meeting: <http://figisapps.fao.org/figis/geoserver/factsheets/firms.html>
Partners are invited to provide comments toward the final clearance for public release.*
- 4. Traffic light approach for the FIRMS State & Trend standard indicators, a further implementation for review**

*During FSC9 it was agreed to move towards the “traffic light approach” where possible (approved as FSC9/D7.2), following the display of the FIRMS state and trend standard descriptors together with the partners' indicators (approved as FSC9/D7.1 and implemented on April 2015). TWG 5.1 (29 July 2015), TWG 5.2 (1 Dec 2015) and TWG5 (29 Feb - 1 March 2016) discussed the color scheme and the underlying logic. Latest decisions and relative documentation are available at http://figisapps.fao.org/FIGISwiki/index.php/FIRMS_Fishery_Resources_Standard_descriptors_for_State_and_trend#Traffic_light_approach (Log in required).
The secretariat implemented the latest recommendations made in February 2016 and examples will be provided and discussed during the call.*
- 5. Introducing the notion of “Assessment Unit” in the FIRMS data model**

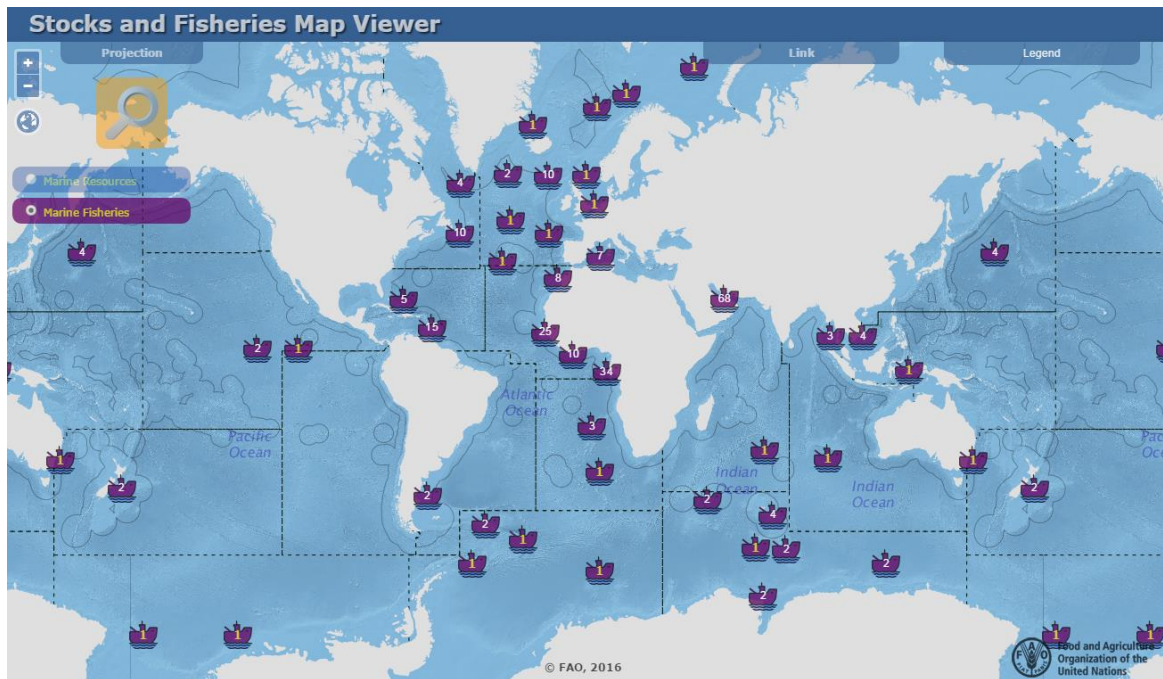
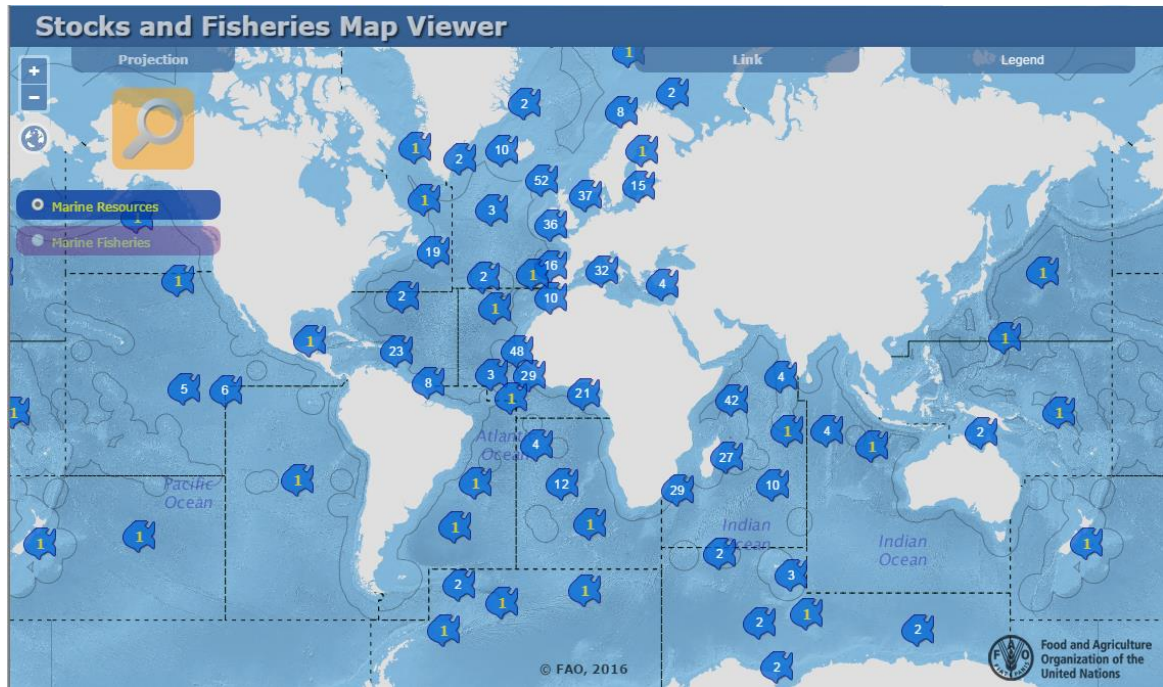
The recent activities for the GRSF - Global Record of Stocks and Fisheries (part of the BlueBRIDGE project) highlighted issues associated with the use of the descriptor “Considered a single stock = Yes/No”. FIRMS is currently offering the option to specify if a marine resource is considered a single stock (from a biological point of view) and whether it is a management unit. A management unit is the unit (which can coincide with the biological stock or not) that is considered for management purposes. Due to the difficulties in identifying true biological stocks, in many cases stock assessments are conducted on assessment units, identified based on the best available knowledge and/or practical/management convenience. Assessment units are then often managed as management units. This situation may generate ambiguity in the use of terminology, as sometimes the term “stock” is used referring to “assessment unit” and/or “management unit”, rather than to “biological stock”. In this context, an update of the data model seems required, introducing a clear distinction between the three concepts. Our proposal is to introduce the notion of “Assessment Unit” to complement the notion of “biological stock” and “management unit”. This way, any FIRMS Marine Resource record would be qualified with three descriptors: “biological stock = Yes/No”, “assessment unit=Yes/No” and “management unit=Yes/No”.

Partners are here invited to provide their initial comments. In the next TWG e-meeting a detailed document will be circulated for further discussion.

6. **Any other business**

“SmartForms” is a mobile app to collect and review fishery and observer data, integrated with a hub for data management and a forms builder for customization. The development of the app is in progress and it will be released as a FAO corporate application (from an IT viewpoint), an open source version is also expected.

ANNEX 3 – Stocks and Fisheries Map Viewer



ANNEX 4 – An analysis on web icons for the info pop-up

(M. Balestra, E. Blondel)

Overall considerations

Icon design strategy follows these rules:

- Thick lines
- Monochromatic
- Both rounded shapes and straight lines
- Almost squared - maybe landscape, never portrait. Such constrains are intended to produce icons that will be quite visible, without looking like a "further detail" or "copyright info", not relevant. They should be clicked, not ignored.

The proposal

Here it is the design proposal for the popup icons layout. Let's see its details.



Disposition

1. First, there is the map icon
2. Second we have "Related"
3. Third, the icon linking to factsheet web page

The first two icons lead to an action that happens inside the viewer itself. They should be close each one to the other, and immediately available.

The third icon leads to an action that takes place out of the viewer, therefore its behavior is slightly different (a bit heavier, framed in window) and it's placed in a "leave" position (bottom right).

Map icon

This icon has been widely used by google to indicate the rendering of a location on a map, therefore its role is quite clear to average users.

“Related” icon

The viewer shows plenty of Fisheries and Vessels, everything here is Fishery on Marine Resource. With this icon we need to highlight the concept of “relation”, “inter-connection”. It shouldn't be a one-direction connection that would lead to the concept of “hierarchy”.

Fact Sheet icon

Fact Sheet icon is basically a link to a web page about the topic that will be shown outside the viewer. Its first purpose is to make crystal clear that it links to a web page

outside. It's slightly heavier than the others, framed like a window, to accomplish such task. The stylised globe that almost universally stands for "www" is in the window, both to make clear it's a web page and to provide a common style behavior with other icons according to design constrains (both rounded shapes and straight lines).

Other proposals that were considered

Many other options were considered in the process.

Most of them would lead to a rupture with design constrains, but we tried anyway to force them in the same look & feel – with no success.

At the same time it was received the request to put lines in the "fact sheet" icon, to make even more evident that it was a link to a fact sheet web page with data.

Relateds

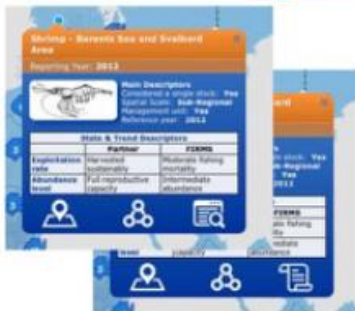
These icons lead to the concept of "hierarchy", rather than "relation" or "interconnection". By developing horizontally they would match the "sharing" icon aspec.



Fact Sheet



This "open-graph" icon misses the interconnection concept, and it's misleading (looks like a link to a line chart)




Nice, but misleading (first looks like search, second is not web)

- Too much white
- No rounded shapes (not harmonized)
- Result => ugly



Annex 5 – Examples of traffic light icons













State & Trend Descriptors			
	Partner	FIRMS	
Exploitation rate	High Fishing Mortality	High fishing mortality	 [?]
Abundance level	Intermediate Stock Size	Intermediate abundance	

State & Trend Descriptors			
	Partner	FIRMS	
Exploitation rate	Moderate (Below Fmsy)	Moderate fishing mortality	 [?]
Abundance level	Low abundance	Low abundance	
	FAO		
Exploitation state	Overexploited		

State & Trend Descriptors				
	Partner	FIRMS		
Exploitation rate	F2013/F0.1 = 0.4		Moderate fishing mortality	 [?]
Abundance level	SSB2013/SSBF0.1: Medium recruitment (1950-2006) =1.10 / Low recruitment (1970s)=1.60 / High recruitment (1990s)=0.67		Intermediate abundance	

State & Trend Descriptors		
	FIRMS	
Exploitation rate	No or low fishing mortality	 [?]
Abundance level	Uncertain/Not assessed	

Disclaimer: The FIRMS State and Trend Descriptors are qualitative indicators based on the stock status evaluation provided by the FIRMS Partners. The coloured icon aims to indicate the overall state of the marine resource in regard to the exploitation rate and abundance level matrix.

Exploitation Rate (FIRMS)	Abundance Level (FIRMS)			
	Pre-exploitation biomass or high abundance	Intermediate abundance	Low abundance	Depleted
High fishing mortality				
Moderate fishing mortality				
No or low fishing mortality				

Annex 6 - Introducing the notion of “Assessment Unit” in the FIRMS data model

Current FIRMS data model for the description of stock structure, stock assessment units and management units

- Considered a single stock = Yes/No
- Management unit = Yes/No



Improving the distinction between biological stock, assessment unit and management unit

DRAFT PROPOSAL:

- Biological stock = Yes/No/Uncertain
- Assessment unit = Yes/No
- Management unit = Yes/No