FIRMS Technical Working Group e-Meeting

Fifth session, 1st part

Online, 29 July, 2015

REPORT

Author: FSC Secretariat

OPENING OF SESSION AND THE WELCOME ADDRESS

1. The Fifth Session of the FIRMS Technical Working Group (TWG) e-meeting (first part) was opened by Mr Gentile, at 17.00 hrs., Rome time (CET, UTC+2) on Wednesday 29 July 2015. He welcomed the representatives of the following agencies: FAO, IATTC, NAFO, SEAFO, WECAFC.

ADOPTION OF THE AGENDA

2. The agenda was presented and adopted.

- Traffic light approach for the FIRMS State & Trend standard indicators, a first proposal
- Review and discuss advanced mock-up on FIRMS Stocks & Fisheries map viewer
- BlueBridge project and Global Record of Stocks and Fisheries
- Updating the FIRMS brochure
- Any other business

Traffic light approach for the FIRMS State & Trend standard indicators, a first proposal

3. The proposal documented at http://figisapps.fao.org/FIGISwiki/index.php/FIRMS_Fishery_Resources_Standard_descriptors_for_State_and_trend#Traffic_light_approach (log-in required) was presented by Mr Gentile and discussed. A comparison between the FIRMS traffic lights and the NAFO Indicators made by NAFO Scientific Council in 2015 was also presented (see Annex 3) and contributed to the assignments of the colors.

   TWG participants finally approved the following color scheme and the underlying logic.

High fishing mortality				
Moderate fishing mortality				
No or low fishing mortality				
Uncertain / Not assessed	Pre-exploitation biomass or high abundance	Intermediate abundance	Low abundance	Depleted

4. IATTC Kobe plots as well as any other supporting information can be added in the section “Biological State and Trend” of the marine resource fact sheets to better contextualize the state indicators, avoid misinterpretations and to provide the proper background information. The colors from the Kobe plot are not misaligned with the FIRMS traffic light, for stocks which have these colors the transition between red/yellow/green is more tightly defined in the plot.
5. ICCAT Kobe plot (also used by IATTC) displayed in the Wiki documentation should be updated by removing “yet” from “Not yet overfished”.
6. The color will be automatically assigned but partners can manually override the default behavior in case or particular situation where the mapping is not satisfactory.
7. Participants suggested that the section “Biological State and Trend” should be moved upward as first topic of the fact sheet and the FIRMS standard State and Trend values should be also displayed in the main descriptors box.
8. The Secretariat will implement the proposed layout and mechanism which will be further discussed and possibly approved in the next TWG e-meeting.

Review and discuss advanced mock-up on FIRMS Stocks & Fisheries map viewer

9. The proposal documented at http://figisapps.fao.org/FIGISwiki/index.php/Renewing_the_FIRMS_website#Stocks_.26_Fisheries_map_viewer (log-in required) was presented and discussed.

10. IATTC suggested developing the map viewer so that when the user clicks on one of the placemarks, the map is reduced in size and the information that goes in the pop-up will occupy the majority of the computer screen. This option can actually be further explored to provide access to the full fact sheet connected to one placemark without the need to have an intermediate pop-up. The pop-up, however, was also conceived for providing to users minimal but exhaustive information on the state and trend of the resource.

11. IATTC and others were also concerned about the visual clustering in some areas of the placemarks. It was noted that the application should allow (pending availability of this functionality within the current Map Viewer) for placemark visual separation once a user either zooms-in or when clicking on one of them (i.e., “expanding cluster” effect). See image below for an example

There is also another way to deal with such issues, specifically to group all close placemark using some criteria (by oceans, by areas, etc.) into one single placemark that indicates, with a number, how many placemarks it contains. See the following

image for a visual explanation.

12. SEAFO asked for mobile device compatibility, more investigations are needed in this area.

13. SEAFO also enquired on the bandwidth requirements. FIGIS applications include this requirement but advanced interfaces like map viewers are more demanding in terms of bandwith in spite of cache mechanisms. However, it was also noted that the legacy FIRMS query interfaces will likely remain operative to support situation when bandwidth limitation may prevent the correct utilization of the map viewer.

14. SEAFO finally stressed the need to keep well separated, in the map, the information on stocks from those from fisheries. This is already the case and more efforts will be done along that way.

BlueBridge project and Global Record of Stocks and Fisheries

15. Anton Ellenbroek introduced the BlueBRIDGE initiative.

16. The BlueBRIDGE initiative applied for EU H2020 funding, and is well on its way to start mid-September for a period of 2.5 years. It will deliver services related to the iMarine e-Infrastructure.

    The goal is to increase our understanding of resource exploitation, environmental degradation and ecosystem management and so provide informed advice to authorities related to the EU's Blue Growth Societal Challenges and the Ecosystem Approach to Fisheries.

    The services aim to support Stock Assessment, Aquaculture farming, Spatial analysis and planning, and on-line courses for stock assessment. The services are

bundled in customizable Virtual Research Environments.

Two VRE's will be developed related to Stock Assessment activities (with partners IRD, ENG, and FORTH):

- The Stock Assessment VRE will provide scientists with access to data and algorithms for stock assessments and population modelling, including ecological- and food-web based biological assessments. We will contact you in the near future to understand how you can benefit from on-line data and tools, e.g. to offer courses or improve performance;
- The Global Record of Stocks and Fisheries VRE will provide scientists with an environment to manage a comprehensive global reference set of unique stocks and (later) fisheries identifiers to support regional or global policy making.

Other relevant VRE's provide on-line training and courses, support satellite analysis and spatial planning:

- VRE's for education and capacity building for the management of marine living resources. The activity will be led by ICES, and implement some of their capacity building training materials and courseware in a comprehensive e-Learning environment. IRD will address the needs from developing countries, and FAO might benefit through its interaction with RFBs.
- The Aquaculture Production System VRE 's aims to support the preparation of National Aquaculture Sector Overviews (NASO) with Radar satellite derived maps of aquaculture and fisheries infrastructure. FAO will lead the activities with CLS and GRID/Arendal.
- The Spatial Planning VRE will combine the Aquaculture production VRE output with other spatial information to feed a GIS system for spatial planners.

BlueBRIDGE capitalizes on past investments and uses the iMarine e-Infrastructure; with 1500+ users, integrating +50 repositories, executing +13,000 models & algorithms per month; providing access to over a billion quality records in repositories worldwide, with 99.7% service availability.

17. A summary of the project can be downloaded here: http://goo.gl/8JBNJR
18. The iMarine e-Infrastructure offers already a range of data services.

Updating the FIRMS brochure

19. NAFO volunteered to update the FIRMS brochure (available at ftp://ftp.fao.org/FI/brochure/FIRMS/). It was decided to transfer the textual content in a GoogleDoc so to allow Mr Hinton, Mr Campanis and Ms Cummings to edit and provide updates. Once completed, Ms Pacey will finalize the layout including new images, and a PDF version will be made available. Translations will be made once the product is completed and approved.

ANY OTHER BUSINESS

20. No other topics were discussed.

21. The meeting was closed at 18:45 PM.

ANNEX 1

LIST OF PARTICIPANTS

Inter-American Tropical Tuna Commission (IATTC)
Dr Michael Hinton
Data Collection and Database Program
8901 La Jolla Shores Drive
La Jolla CA 92037-1508, USA
Phone: +1 (858) 546 7033
Fax: +1 (858) 546 7133
Email: mhinton@iattc.org

Ms JoyDeLee C. Marrow
Data Collection and Database Program
8901 La Jolla Shores Drive
La Jolla CA 92037-1509, USA
Tel: +1 858-546-7100
Fax: +1 858-546-7133
E-mail: jmarrow@iattc.org

Northwest Atlantic Fisheries Organization (NAFO)
Dr Neil Campbell
Scientific Council Coordinator
2 Morris Drive, P.O. Box 638
Dartmouth, Nova Scotia
Canada B2Y 3Y9
Phone: +1 902 468-7542
E-mail: ncampbell@nafo.int

Ms Dayna Bell
Science Information Administrator
2 Morris Drive, P.O. Box 638
Dartmouth, Nova Scotia
Canada B2Y 3Y9
Phone: +1 902 468 5590 ext. 203
E-mail: dbell@nafo.int

Ms Alexis Pacey
Publications Manager
2 Morris Drive, P.O. Box 638
Dartmouth, Nova Scotia
Canada B2Y 3Y9
Phone: +1 902 468 5590 ext. 208
E-mail: apacey@nafo.int

Southeast Atlantic Fisheries Organization (SEAFO)
Mr George Campanis
Data Manager
1 Strand Street, NatMirc,
Swakopmund, Namibia
Phone: + 264 (64) 406-885
Fax: + 264 (64) 406-884
E-mail: gcampanis@seafo.org

Western Central Atlantic Fishery Commission (WECAFC)

National Oceanic and Atmospheric Administration (NOAA)
Ms Nancie Cummings
Department of Commerce, National Marine
Fisheries Service, Southeast Fisheries
Science Center
Florida, United States of America
Tel.: (+1) 305 3614234
E-mail: Nancie.Cummings@noaa.gov

Food and Agriculture Organization of the United Nation (FAO)
Mr Fabio Carocci
Fishery Information Assistant
Via delle Terme di Caracalla
00153 Rome
Italy
Phone: +39 06 570 55176
E-mail: Fabio.Carocci@fao.org

Mr Anton Ellenbroek
Information System analyst
Via delle Terme di Caracalla
00153 Rome
Italy
Tel.: +39 06570 54029
E-mail: Anton.Ellenbroek@fao.org

FIRMS Secretariat
E-mail: FIRMS-Secretariat@fao.org

Mr Aureliano Gentile
Information Manager
Via delle Terme di Caracalla
00153 Rome
Italy
Phone: +39 06 570 53754
E-mail: Aureliano.Gentile@fao.org

ANNEX 2 - ANNOTATED AGENDA AND TIMETABLE

FIRMS Technical Working Group e-Meeting
Fifth session, 1st part
Online, 29-07-2015
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. **Traffic light approach for the FIRMS State & Trend standard indicators, a first proposal**
   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 201), during FSC9 it was also agreed to move towards the "traffic light approach" where possible (approved as FSC9/D7.2). Here follows a first draft proposal built on the S&T mapping rules between FIRMS and partners:
   http://figisapps.fao.org/FIGISwiki/index.php/FIRMS_Fishery_Resources_Standard_descriptors_for_State_and_trend#Traffic_light_approach (Log in required).
   In the Wiki page find also a NAFO comparing exercise to test the FIRMS proposal.

4. **Review and discuss advanced mock-up on FIRMS Stocks & Fisheries map viewer**
   The development of the FIRMS Stocks & Fisheries map viewer is related to FSC9 decision D9.4, in the context of renewing the FIRMS website. Following initial discussions during TWG4 and FSC9, the Secretariat has developed more detailed user scenarios for evaluation:
   http://figisapps.fao.org/FIGISwiki/index.php/Renewing_the_FIRMS_website#Stocks_.26_Fisheries_map_viewer - Log in required, see link "Stocks & Fisheries map viewer - user scenarios (TWG 5.1 July 2015).

5. **BlueBridge project and Global Record of Stocks and Fisheries**
   Related to FSC9 decision D9.5, the Secretariat will briefly inform on the successful selection of the BlueBridge project for funding by EU and the expected activities on the project component "Global Record of Stocks and Fisheries".

6. **Updating the FIRMS brochure**
   NAFO volunteered to update the FIRMS brochure (available at ftp://ftp.fao.org/FI/brochure/FIRMS/), advices are welcome for editing the text and for the provision of new images.

7. **Any other business**

ANNEX 3 - Comparing FIRMS traffic lights with NAFO Indicators

Comparing FIRMS traffic lights with NAFO Indicators

The table mapping NAFO stocks to FIRMS descriptors produced by NAFO Scientific Council in 2015 is given below.

Stock Size (incl. structure)	Fishing Mortality			
	None–Low	Moderate	High	Unknown
Virgin–Large	3LNO Yellowtail flounder			
Intermediate	3M Redfish[3] 3LN Redfish 3NO Witch flounder	SA0+1 Northern shrimp[1] DS Northern shrimp[1] 0&1A Offsh. & 1B–1F Greenland halibut	3M Cod	Greenland halibut in Uummannaq[2] Greenland halibut in Upernavik[2] Greenland halibut in Disko Bay[2] SA1 American Plaice SA1 Spotted Wolffish
Small	SA3+4 Northern shortfin squid 3NOPs White hake			3LNOPs Thorny skate SA2+3KLMNO Greenland halibut
Depleted	3M American plaice 3LNO American plaice 2J3KL Witch flounder 3NO Cod 3M Northern shrimp[1,3] 3LNO Northern shrimp[1]			SA1 Redfish SA0+1 Roundnose grenadier SA1 Atlantic Wolffish
Unknown	SA2+3 Roughhead grenadier 3NO Capelin 3O Redfish			SA2+3 Roundnose grenadier

In 2013 NAFO adopted a system of traffic light indicators to describe stock status and fisheries with respect to objectives set out in the NAFO Convention. As an example, the advice table for cod in Div. 3M is as follows:

Convention objectives	Status	Comment/consideration
Restore to or maintain at B_{msy}	🟢	Stock increasing
Eliminate overfishing	🔴	$F>F_{msy}$ - Current F not sustainable
Apply Precautionary Approach	🟡	F_{lim} and B_{lim} defined, HCR in development
Minimise harmful impacts on living marine resources and ecosystems	🟡	VME closures in effect, no specific measures.
Preserve marine biodiversity	⚪	Cannot be evaluated

🟢 OK
🟡 Intermediate
🔴 Not accomplished
⚪ Unknown

Translating these classifications to the proposed FAO indicator system, and comparing with the NAFO system produces the following result.

Species	Stock	FIRMS Indicator	NAFO Objective	NAFO Objective

			"Restore to or maintain at B_{msy}"	*"Eliminate overfishing"*
Cod	3M			
	3NO			
Redfish	3M			
	3LN			
	3O			
American Plaice	3M			
	3LNO			
Witch Flounder	2J3KL			
	3NO			
Yellowtail Flounder	3LNO			
White Hake	3NO			
Thorny Skate	3LNOPs			
Capelin	3NO			
Northern Shrimp	3M			
	3LN			
Squid (*Ilex*)	3+4			