

FIRMS Technical Working Group e-Meeting
Sixth session, 1st part
Online, 14 December, 2017
REPORT
Author: FIRMS Secretariat

OPENING OF SESSION AND THE WELCOME ADDRESS

1. The Sixth Session of the FIRMS Technical Working Group (TWG) e-meeting (first part) was opened by Mr Gentile (FIRMS Secretariat) at 17.00 hrs. Rome time (CET) on Thursday 14th of December 2017. He welcomed the representatives of the following agencies: IATTC, ICCAT, ICES, NAFO, IOTC, WECAFC/NOAA (see Annex 1 List of Participants).

ADOPTION OF THE AGENDA

2. The agenda (Annex 2) was presented and adopted without modifications.

Revising FIRMS standards and definitions (meeting document TWG6.1/2017/2)

3. Ms Gorelli (FIRMS Secretariat) delivered a presentation (Annex 3) describing issues associated with the use of some FIRMS standard terms, which were identified during the last FIRMS Steering Committee (FSC10, Copenhagen, June 2017).
4. In particular, the descriptor “Considered a single stock = Yes/No” is leading to inconsistencies in the database, as it confounds the concept of true (genetic) biological stock and assessment unit. Therefore, the use of two separate descriptors “Biological stock = Yes/No/Unknown” and “Assessment unit = Yes/No” was proposed (Proposal 1 of meeting document TWG6.1/2017/2, see also for complete definitions). The two terms would be used in place of the current descriptor “Considered a single stock”. They would be compulsory and used for search purpose in the database.

5. Participants endorsed the proposal and recommended its implementation. It was agreed that FIRMS Secretariat will prepare an update of the existing fact sheets with the new terms, to be submitted to each partner for its validation before publication.
6. Controlled terms for the descriptor “Jurisdictional distribution” were revised and definitions were proposed (Proposal 2 in TWG6.1/2017/2). In particular, definitions were collated from UNCLOS, 1982, and related documentation (see reference list in TWG6.1/2017/2). Participants argued that the definitions for the terms “Highly migratory” and “Straddling between high seas and EEZ” were not providing a clear distinction between the two terms. Some participants pointed out that indeed there is a difference between straddling stocks and highly migratory ones, but this however might be of biological nature rather than jurisdictional. It was also suggested that the two terms could be merged in order to simplify the data model. It was finally agreed that the FIRMS Secretariat will prepare a new proposal, including two alternative options: a) merging of the two terms “Highly migratory” and “Straddling between high seas and EEZ”; and b) provision of clearer definitions, keeping the separation between the two terms.
7. Controlled terms for the descriptor “Spatial scale” were revised and definitions were proposed (Proposal 3 in TWG6.1/2017/2). The suggested definitions were approved, however the participants expressed concern regarding the definition of the Spatial Scale descriptor as “Geographic level at which the Marine Resource / Fishery is monitored”. Particularly, it is not clear what the word “monitored” refers to. In fact, it was pointed out that the monitoring of a fishery can occur at different geographic scales simultaneously. It was clarified that the term “monitored” in this context stands for “reported”, meaning the spatial scale at which the resource / fishery is being reported in FIRMS. In this regard, the group agreed that FIRMS Secretariat will improve the definition of the “Spatial scale” descriptor to remove any ambiguity.

FIRMS Stocks & Fisheries map viewer: seeking feedback for improvements

8. Mr Gentile presented the most recent improvements to the FIRMS Stocks & Fisheries map viewer.
9. Participants recommended not to use the wording “Owned by Partner X”, when referring to stocks and fisheries in the pop-ups. Instead, the use of “Reported by Partner X” was suggested.

10. The current mechanism for zooming into a selected stock/fishery area was described. Participants agreed on the need for further improving.
11. Mr Gentile presented a list of possible indicators of the FIRMS data coverage (Annex 4) that could be displayed as complementary information within the Stock and Fisheries map viewer. An example of a simple table with partners and number of reports was presented. The distinction between tools to assess data coverage and tools for data analysis was highlighted. In this context, the FIRMS webservice were introduced¹. Users can use such web services to filter the available information and export list of stocks and fisheries of interest, basing on specific search parameters (e.g. availability of stock status information).
12. Participants invited the Secretariat to produce examples of the proposed indicators to be discussed at the next TWG e-meeting.

Informing about the upcoming meeting on the Global Record of Stocks and Fisheries (GRSF) in February 2018.

13. Mr Gentile informed on the upcoming GRSF meeting that will take place at FAO Headquarters on the 7-9th of February 2018. He reminded to the group that the FSC10 (Copenhagen, June 2017) decided that FIRMS should work toward taking ownership of GRSF tool and related collaborations to promote and disseminate the importance of and information on national stocks monitored by countries under SDG14.4.1 'Proportion of fish stocks within biologically sustainable levels', for the benefit of Member States and the general public. Representatives of FIRMS Partners will be invited to attend.

Any other business

14. No other topics were discussed.
15. The meeting was closed at 6:40 p.m.

¹ FIRMS Web services:

- Marine resources <http://www.fao.org/figis/moniker/firmsmarineresources>
- Fisheries <http://www.fao.org/figis/moniker/firmsfisheries>

ANNEX 1

LIST OF PARTICIPANTS

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ANNEX 2 - ANNOTATED AGENDA

FIRMS Technical Working Group e-Meeting
Sixth session, 1st part
Online, 14-12-2017
PROVISIONAL ANNOTATED AGENDA AND TIMETABLE
Author: FIRMS Secretariat

From 17:00 hours to 18:30 hours Rome time (CET)

1. **Opening of session and introduction**
2. **Adoption of agenda**
3. **Revising FIRMS standards and definitions (meeting document TWG6.1/2017/2)**
The discussion held during the last GRSF workshop (EAB-TWG2, Rome 28 February – 2 March 2017) and FIRMS Steering Committee (FSC10, Copenhagen, June 2017) highlighted the need to update some of the existing FIRMS standards and definitions (ref. to FIRMS Steering Committee decision FSC10/D9.2). Here, we propose revisions of some of the FIRMS standard descriptors of marine resources, in particular:
 1. “Considered a single stock”;
 2. “Jurisdictional distribution”;
 3. “Spatial scale”.
4. **FIRMS Stocks & Fisheries map viewer: seeking feedback for improvements**
Features of the FIRMS Stocks and Fisheries map viewer will be reviewed and discussed for further improvement (ref. to FIRMS Steering Committee decision FSC10/D8.9).
5. **Informing about the upcoming meeting on the Global Record of Stocks and Fisheries in February 2018.**
6. **Any other business**

ANNEX 3 – Revising FIRMS Standards and Definitions

Revising FIRMS Standards and Definitions

FIRMS Technical Working Group 6.1

Online, 14th December 2017

Relative to doc. TWG6.1/2017/2



Presentation Outline

Revising FIRMS controlled terms and definitions, as per FIRMS Steering Committee Decision FSC10/D9.2:

- Considered a single stock
- Jurisdictional distribution
- Spatial scale

Considered a single stock

Current Data Model:

- Considered a single stock = Yes/No

ISSUES

- The concept of biological stock and assessment unit are mixed
- This can lead to inconsistent use in the database

Examples:

		Considered a single stock
European hake – Northern Spain	This is not a biological stock, but is considered as a unit for the purpose of the assessment	NO
Amberjacks - Cabo Verde	This is not a biological stock, but is considered as a unit for the purpose of the assessment	YES

Considered a single stock

Proposal 1: Provide a clear separation between the “biological stock” and the “assessment unit” concepts

PROPOSED DESCRIPTORS and DEFINITIONS		
Descriptor	Definition	Values
Biological stock	A subset of a species having the same growth and mortality parameters, inhabiting a particular geographic area and showing negligible mixing with adjacent subsets of the same species (adapted from ²).	Yes / No / Unknown
Assessment Unit	The subset of one (or more) species that is the object of a stock assessment and/or any other analysis aiming to investigate stock status. The assessment unit can coincide with the biological stock (ideally) or not. In some cases the biological stock boundaries are not known and assessment units are established on the basis of practical/political convenience. Being the focus of an assessment, assessment units implicitly inform on the very likely existence of at least some management measures.	Yes / No

Considered a single stock

Implementation:

- From the moment of their adoption, “Biological stock” and “Assessment Unit” would be used instead of “Considered a single stock”

Examples:

	Biological Stock	Assessment Unit
European hake – Northern Spain	NO	YES
Amberjacks - Cabo Verde	NO	YES

- “Biological stock” and “assessment unit” would be mandatory descriptors and will be used for search purposes within the database
- Partners will be asked to review proposed values for “Biological stock” and “Assessment unit” for each of their stocks reported in FIRMS (including the already published records), in order to update of the entire database

Jurisdictional Distribution

Current Data Model:

PROPOSED DEFINITIONS			
Descriptor	Definition	Controlled terms	Definitions (adapted from ³ and ⁴)
Jurisdictional distribution	Typology of shared stocks considering how the stock distribution overlaps marine jurisdictions ¹	National	
		Shared between nations	
		Highly migratory	
		High seas purely	
		Straddling between high seas and EEZ	
		Unspecified	

ISSUES

Definitions for these controlled terms are not clearly provided in the FIRMS guidelines and Information Management Policy, and FSC10 advised to adopt broadly accepted definitions (see Proposal 2), to prevent inconsistent use of these terms in the database.

Jurisdictional Distribution

Proposal 2:

PROPOSED DEFINITIONS			
Descriptor	Definition	Controlled terms	Definitions (adapted from ³ and ⁴)
Jurisdictional distribution	Typology of shared stocks considering how the stock distribution overlaps marine jurisdictions ¹	National	Marine Resource distributed within the EEZ of one country
		Shared between nations	Marine Resource whose distribution overlaps the EEZ of two or more countries
		Highly migratory	Marine Resource capable of migrating relatively long distances, which is likely to occur both within EEZs and high seas (a list of highly migratory species can be found in ⁵)
		High seas purely	Marine Resource that is not found in EEZs
		Straddling between high seas and EEZ	Marine Resource whose distribution overlaps EEZ(s) and areas beyond national jurisdiction
		Unspecified	Unspecified

Spatial scale

Current Data Model:

PROPOSED DEFINITIONS			
Descriptor	Definition	Controlled terms	Definition
Spatial Scale	Geographic level at which the Marine Resource / Fishery is monitored ¹	Local	
		National	
		Sub-regional	
		Regional	
		Global	
		Unspecified	

ISSUES

Definitions for these controlled terms are not fully provided in the FIRMS guidelines and Information Management Policy, and FSC is advised to consolidate these definitions (see Proposal 2), to prevent inconsistent use of these terms in the database.

Spatial scale

Proposal 3:

PROPOSED DEFINITIONS			
Descriptor	Definition	Controlled terms	Definition
Spatial Scale	Geographic level at which the Marine Resource / Fishery is monitored ²	Local	Marine Resource / Fishery monitored at sub-national level
		National	Marine Resource / Fishery monitored at national level
		Sub-regional	Marine Resource / Fishery monitored at sub-regional level (e.g. including more than one country's EEZ and/or part of RFB area of competence or resource monitored at LME level)
		Regional	Marine Resource / Fishery monitored at the level of one or more FAO major fishing area or equivalent RFB area of competence. Regional monitoring can also be at major Ocean level
		Global	Marine Resource / Fishery monitored at global level (e.g. global reviews of the state of marine resources provided by FAO)
		Unspecified	Unspecified

Follow-up

1. FIRMS TWG to propose modifications to and/or endorse proposals 1, 2 and 3
2. FIRMS Secretariat to prepare an update of the existing fact sheets (re Proposal 1) for partner's validation before implementation
3. Final endorsement will be done by FSC11
4. Controlled terms definitions for "Jurisdictional Distribution" and "Spatial Scale" will be introduced in the FIRMS Guidelines and Information Management Policy (IMP)

References

- ¹ FIRMS Marine Fishery resources Inventory: Methods and Guidelines
- ² Sparre, P., Venema, S.C. Introduction to tropical fish stock assessment. Part 1. Manual. FAO Fisheries Technical Paper. No. 306.1, Rev. 2. Rome, FAO. 1998. 407p
- ³ Maguire, J.-J., Sissenwine, M., Csirke, J., Grainger, R., Garcia, S. The state of world highly migratory, straddling and other high seas fishery resources and associated species. FAO Fisheries Technical Paper. No. 495. Rome: FAO. 2006. 84p.
- ⁴ The Quest for Sustainable International Fisheries. Evelyne Meltzer, 2010 (NRSC Research Press Editor)
- ⁵ UN, 1982. United Nations Convention on the Law of the Sea, Annex I (Highly Migratory Species) http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

ANNEX 4 – FIRMS Indicators

FIRMS Indicators

FIRMS Technical Working Group 6.1

Online, 14th December 2017

Relative to agenda item 4. FIRMS Stocks & Fisheries map viewer: seeking feedback for improvements



Data coverage indicators

Organization	MR	F
BNP	—	5
CCAMLR	19	19
CCSBT	1	—
CECAF	172	77
FAO	21	41
GFCM	52	—
IATTC	8	1
ICCAT	22	—
ICES	188	—
IOTC	15	—
NAFO	17	5
NASCO	—	1
NEAFC	—	8
RECOFI	—	68
SEAFDEC	—	8
SEAFO	12	1
SWIOFC	110	—
WECAFC	50	22

A simple example:

Number of Marine Resources and Fisheries reports (primary observations) by Organization

Possible indicators

- * How many stocks with stock status indicators (including and excluding unknown), globally and per region;
 - * How many stocks with catch series, globally and per region
 - * How many stocks with reference year >=2015

 - * How many stocks formally inventoried vs. stocks reported (with known or unknown status) globally and per region
 - * For stocks reported (known or unknown status), what is the total volume of catches (to be compared with the total landings of the FAO Catch statistics database)
- And to compare with SOFIA's indicator
- * How many stocks are monitored at regional level (i.e. as per SOFIA definition)? And how many have stock status reports?

Tools for Data analysis

* FIRMS web services

- * <http://www.fao.org/figis/moniker/firmsmarineresources>
- * <http://www.fao.org/figis/moniker/firmsfisheries>

FIRMS Marine Resources [Switch to Fisheries] [205 / 2004 / Excel]

Quick Filter Advanced Filter 822 entries selected

[View file (.x)]

Collection ID	Inventory ID	Date Created	FIRMS Title	Lang	XML	HTTP	Reporting Year	Reference Year	Water Area(x)	Intersecting FAO Area(s)	Fishery Indicator(s)	Species Scientific Name(s)	Stock Name(s)	Exploitation Rate Free Value	Exploitation Rate FAO Standard Value	Abundance Level Free Value	Abundance Level FAO Standard Value	FAO Exploitation State		
34		FAO	Oceanic pelagic fishes - Atlantic and Pacific	en	XML	HTTP	2004	2005	443 476		31	Scombridae, Sargassumidae, Xiphiidae								
34	3022040	FAO	Queen conch - Pacific and Indian	en	XML	HTTP	2004	2011	443 476		31	Stomatopoda			Unassessed			Unassessed		
7		ICES	Salmon - North Sea	en	XML	HTTP	2008	2008	for_40_21 (i.e. for_40_21.4.0, for_40_21.4.1, for_40_21.4.2)		27	Salmo salar		Harvested	Full reproductive capacity	Full reproductive capacity			Intermediate abundance	
8		FAO	Marine resources - Southern Atlantic	en	XML	HTTP	2011	2009	for_40_21 (i.e. for_40_21.4.0, for_40_21.4.1, for_40_21.4.2)		41	Argentine hake, Southern hake, Patagonian grenadier and Southern Guy sardine, Other demersal fish stocks in Group 31, Several stocks of coastal demersal species on Group 30, Brazilian sandwells off Central Brazil, Argentine anchovy, Southeast Atlantic, Tuna and other large pelagics, Chirocentridae, Argentine shortfin squid								
17	HW4022	FAO	Chile - Molluscs	en	XML	HTTP	2012	2009	for_40_21 (i.e. for_40_21.4.0, for_40_21.4.1, for_40_21.4.2)		31	Argentine shortfin squid, Octopoda			Full reproductive capacity	Full reproductive capacity			Intermediate abundance	Fully exploited