

**BlueBRIDGE External Advisory Board (EAB) - FIRMS****Joint meeting of BlueBRIDGE Technical Working Group (TWG3) and FIRMS TWG6  
on the Global Record of Stocks and Fisheries (GRSF)****Rome, Italy, 7 to 9 February 2018****Value Proposition for a FIRMS-GRSF-SDG14.4.1 partnership initiative****Author: Developed by FAO/FIAS for feedback by GRSF and FIRMS Partners****The FIRMS partnership and GRSF system in support of stock status monitoring for  
the SDG indicator 14.4.1**

Because the fish\* stock<sup>†</sup> concept is the cornerstone of all fishery management plans, the U.N. Sustainable Development Goals initiative elaborated a goal dedicated to fishery sustainability (SDG14.4<sup>‡</sup>), of which the progress indicator is based on the status of stocks (SDG14.4.1): the “Proportion of fish stocks within biologically sustainable levels”. To contribute to indicator SDG14.4.1, countries will report on the status of stocks within their EEZs. A globally consistent monitoring system will be required to facilitate a transparent, traceable and comparable reported indicator.

The Global Record of Stocks and Fisheries (GRSF) was created as part of the BlueBRIDGE<sup>§</sup> project by FAO and partners\*\* as a key collaborative instrument to collectively support the global monitoring of fish stocks and fisheries status. It has been established as a Virtual Research Environment (VRE) of the iMarine<sup>††</sup> initiative, for fish stock and fisheries information, metadata, and related-tools. The iMarine initiative relies on a robust e-infrastructure (D4Science<sup>‡‡</sup>), which FAO collaborates with for ten years. D4Science offers a great potential for future evolutions and functionalities development of GRSF, beyond what was implemented during the lifetime of the BlueBRIDGE project.

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\* ‘Fish’ designates here any aquatic organism.

<sup>†</sup> <http://www.fao.org/docrep/003/w4230e/w4230e09.htm>

<sup>‡</sup> <https://sustainabledevelopment.un.org/sdg14>

<sup>§</sup> <http://www.bluebridge-vres.eu/>

\*\* Current partners are Sustainable Fisheries Partnership (SFP), University of Washington (UW), National Research Council (CNR), Foundation for Research and Technology - Hellas (FORTH)

<sup>††</sup> <http://i-marine.d4science.org/>

<sup>‡‡</sup> <http://www.d4science.org/>

GRSF is designed to handle the information on stock monitoring that countries perform directly or through the Regional Fishery Bodies (RFBs). GRSF contributes to enhance the global monitoring by i) collating records from either national<sup>§§</sup> or regional sources<sup>\*\*\*</sup>, ii) organizing and storing stock information according to specific data standards and protocols which allow comparability between records and consistency of the database, and iii) assigning and publishing Global Unique Identifier for single stock standard identification. GRSF has already gathered and organized about 3,000 stock records from 3 participating partners' data sources<sup>†††</sup>. The quality control and information cleaning work is in progress (e.g., identifying/connecting duplicates), and about 2,000 records for unique stocks are expected at the end of that process.

The latest Steering Committee (June 2017, FSC10<sup>†††</sup>) of the Fisheries Resources Monitoring System (FIRMS) Partnership between Regional Fisheries Bodies and FAO decided that the Partnership should work towards taking the ownership of GRSF which can help achieve its goal: “facilitate the monitoring of the status and trends of all fishery resources.” GRSF can be the tool, together with related collaborations, to disseminate the information on national stocks monitored by countries under SDG14.4.1, and promote their efforts to render their fisheries sustainable to the general public and their own benefit. This would proceed through expanding and strengthening the current FIRMS Partnership to bodies, countries and resource partners willing to contribute to GRSF, and the FIRMS goal in general.

An expanded FIRMS-GRSF partnership (hereafter FIRMS-GRSF) can improve the global stocks and fisheries monitoring framework by supporting a standard-based inventory mechanism for SDG14.4.1, and by recommending the use of strengthened FAO and FIRMS standards and protocols. By addressing traceability, transparency, consistency and comparability of stocks status across time and geographic scales (national stocks and shared regional stocks), FIRMS and GRSF can together provide a key monitoring instrument to help FAO fulfilling its SDG14.4.1 custodianship role.

This instrument can be tailored for use by countries to enable/facilitate the dissemination of their individual stocks status. It allows fishery-related institutions and NGOs to collaborate and contribute to the SDG14.4.1, in line with the SDG17<sup>§§§</sup> “Strengthen the means of implementation and revitalize the global partnership for sustainable development”. It can also enhance the FIRMS dissemination coverage of stocks status globally, strengthen the key role of the FIRMS RFB Partners in ensuring the consistency of the inventory backbone across national and regional

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<sup>§§</sup> for the stocks that countries have ownership on in their national waters

<sup>\*\*\*</sup> for the stocks that countries share with neighbouring countries or regions, in waters that are under national and/or international jurisdiction

<sup>†††</sup> [Fisheries and Resources Monitoring System \(FIRMS\)](#), [RAM Legacy Stock Assessment Data Base](#), [FishSource](#)

<sup>†††</sup> [http://www.fao.org/fi/static-media/MeetingDocuments/FIRMS/FIRMS\\_FSC10/FIRMS\\_FSC10\\_Report.pdf](http://www.fao.org/fi/static-media/MeetingDocuments/FIRMS/FIRMS_FSC10/FIRMS_FSC10_Report.pdf)

<sup>§§§</sup> <https://sustainabledevelopment.un.org/sdg17>

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scales, and provide fishery biologists with basic and standard information essential to their analysis and understanding of stocks status.

By supporting the implementation of a standards-based inventory mechanism from national through regional to global level, FIRMS-GRSF can also contribute to strengthen the regular FAO SOFIA \*\*\*\* report on the global status of stocks.

GRSF was also designed to provide a reliable information source for sustainable fishery certification that can help countries to benefit from their commitment to the SDG14.4. Such capacity is expected to strengthen the likeliness of long-lasting GRSF services. FIRMS also endorsed this potential activity provided that the suggested governance options for FIRMS-GRSF fit the FIRMS' mandate, and are compliant with FAO's private-public partnership principles.

Like for the capture production statistics, gathering national data presenting some economic sensitivity requires a framework of trust and genuine collaboration. FIRMS-GRSF can benefit from and reinforce the networks already put in place by FAO and its various partnerships related to fisheries, FIRMS in particular, for handling sensitive matters related to fisheries.

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## **10 Reasons make the Global Record of Stocks and Fisheries (GRSF), a key instrument of global fish stocks status monitoring and traceability**

- A comprehensive global information repository on fish stocks and fisheries
- Collation of independent repositories with complementary data coverages (3 are in already)
- Information harmonized through international and dedicated standards
- Assignment and publishing of unique identifiers to stock records for easy information management, retrieving, and interoperability
- Information managed and displayed in a powerful and effective web-based collaborative environment allowing multiple contributions in a data validation workflow
- Updates and incremental contributions facilitated
- Transparency valued through source and ownership metadata, proper citations and credits, and respect of ownerships
- Contribution to international initiatives such as the U.N. Sustainable Development Goals (14, 17, ...), the State of the World Fisheries and Aquaculture (SOFIA), ...
- Users accessing a huge amount of quality data collected in a cost-effective way with distributed effort among authoritative sources
- Authoritative source of information for traceability and certification in the seafood industry

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\*\*\*\* State of the World Fisheries and Aquaculture