



Food and Agriculture Organization
of the United Nations



Fisheries and Resources Monitoring System (FIRMS)

Marc Taconet, Head of Branch

Aureliano Gentile, Information Officer

Bracken van Niekerk, Fishery Information FIRMS

FAO Fisheries Statistics and Information Branch



SIOFA | APSOI

Southern Indian Ocean Fisheries Agreement
Accord relatif aux Pêches dans le Sud de l'Océan Indien

SIOFA Sixth Meeting of the Parties
(MoP6)



Outline

- Background SIOFA – FIRMS
- The FIRMS partnership and benefits to world users
- About the system and the inventories
- Products & Services



Background: SIOFA-FIRMS Collaboration

- Related to meeting doc. [MoP6-Doc10 SIOFA-FIRMS Partnership.pdf](#)
- FIRMS was presented at the SIOFA SC4 (Yokohama, Japan, 25 – 29 March 2019)
- The SIOFA SC4 recommended that the MoP consider that the SC supported, in principle, joining FIRMS as a Partnership Arrangement, noting the resourcing implications (SC4 Report paras 186-189 <http://apsoi.org/node/110>)



Fisheries and Resources Monitoring System (FIRMS)

Founded in 2004, 15 years of experience...

FIRMS aims to facilitate access
to high-quality information on the **status and trends of marine resources and fisheries** for decision makers and other relevant stakeholders
to develop effective **fisheries policies and management plans**



CCAMLR



Food and Agriculture
Organization of the
United Nations



an information sharing partnership to facilitate the monitoring of stocks status and fisheries
among 16 intergovernmental organizations / 21 RFBs



ICES
CIEM



iotc ctoi



NAFO



NORTH-EAST ATLANTIC
FISHERIES COMMISSION



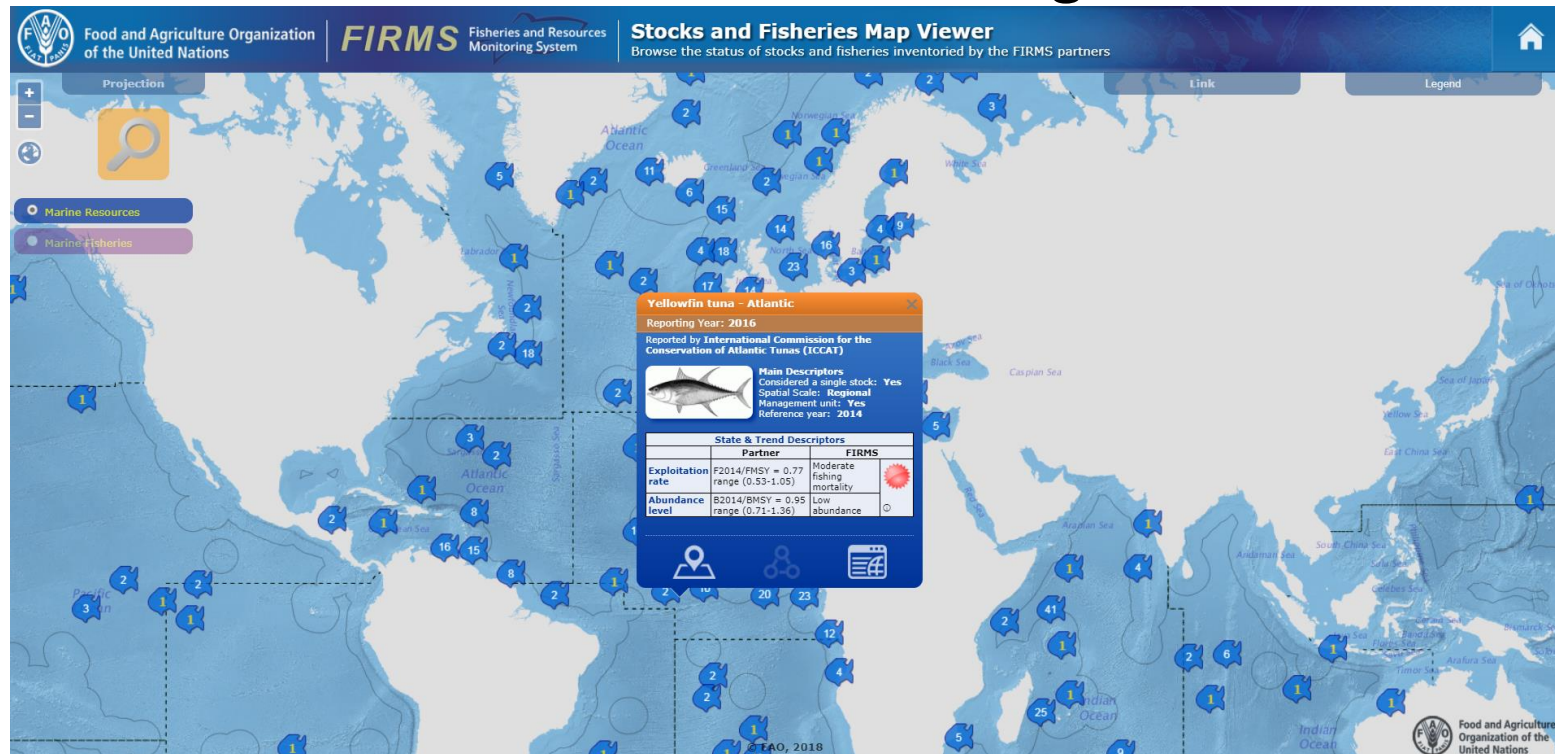
SEAFO



SPRFMO

Fisheries and Resources Monitoring System (FIRMS)

- Provide access to a wide range of high-quality information on the **global monitoring and management of fishery marine resources**
- Monitoring based on **inventories** of stocks and fisheries
- Including identification of single marine resources/stocks and indicators of **Stock State/total catch/landings**





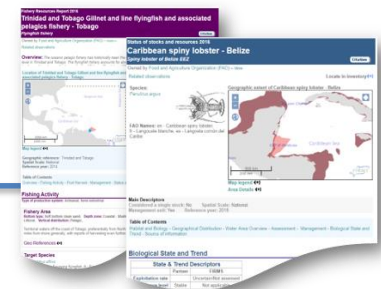
FIRMS benefits and opportunities for regions and countries

- At **national level**: FIRMS **supports easy access** to **information** for the development/enhancement of fisheries policies and **management plans at national and regional levels**.
- At **regional level**: the FIRMS monitoring system ensures: i) **dissemination** of relevant SIOFA's information on the **state of deep seas fisheries and resources**, and ii) proper **visibility** of SIOFA's regional information as part of the broader landscape of other deep seas RFMOs.
- At **global level**: FIRMS ensures visibility at **global level**, including the promotion of sustainability of high seas and deep seas fisheries in collaboration with other deep-sea RFMOs, traceability of fishery products, SDGs, and access to programs and project opportunities. FIRMS and the complementary FAO Vulnerable Marine Ecosystems database together contribute to the broader **"Fisheries and Aquaculture knowledge base"**.



FIRMS Marine Resource & Fishery inventories

- Inventories constitute the **backbone** of the **FIRMS** knowledge base
- Inventories built for **reporting purposes** to capture **status and trends** of Marine Resources and Fisheries
- MS Excel based (e.g. for initial data input)
- Data harmonized according FIRMS standards and **validated by data owners** (e.g. SC)
- Stored into the FIRMS database and published as **fact sheets**
- Through their data inputs in FIRMS, partners contribute to the **global inventory** of marine resources and fisheries.

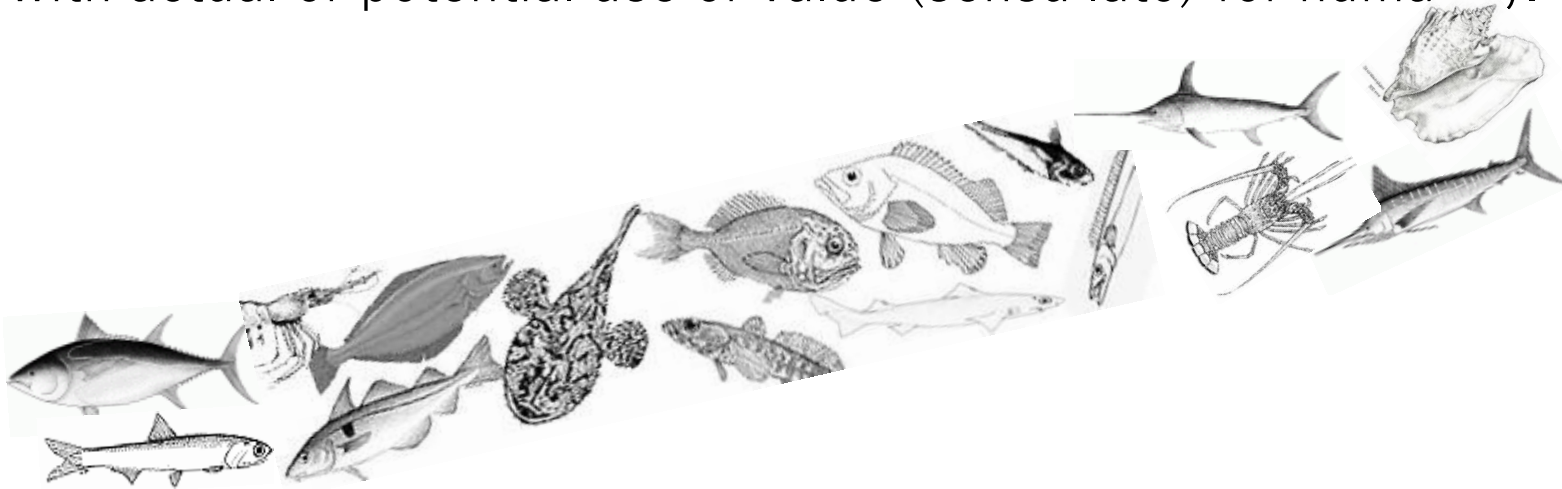


“You manage what you can measure”

FIRMS Marine Resource inventory

A comprehensive list of aquatic resources of value to fisheries.

The aquatic resources are the biotic element of the aquatic ecosystem, including genetic resources, organisms or parts thereof, populations, etc. with actual or potential use or value (sensu lato) for humanity.



FIRMS Fishery inventory

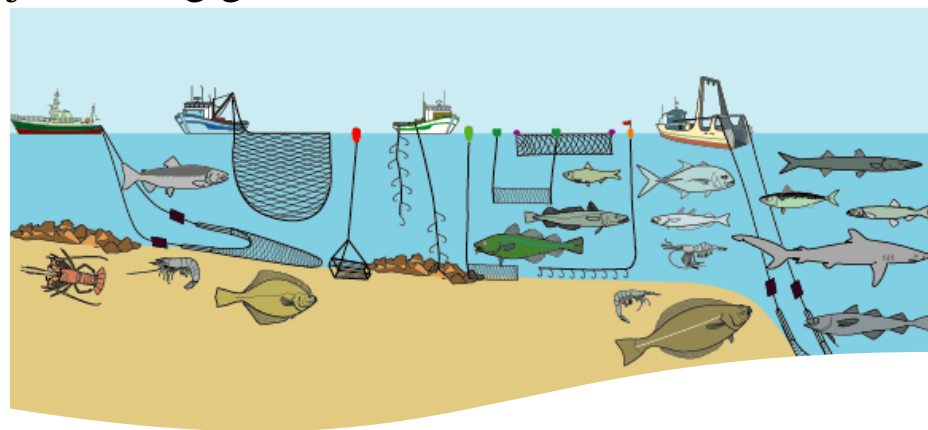
A comprehensive list of fishery units identified at an agreed scale and within a defined scope, including consideration of geographic reference, thematic approach, and purpose.

Geographic reference, thematic approach, and purpose are the main criteria driving the identification of fishery units in an inventory.

A statistical **fishing unit** is a particular type of fishing activity, conducted by a single flag country using a vessel and its major fishing gear.

Key data for fishery unit identification:

- Species (target and bycatch)
- Fishing area
- Gear
- Flag state
- Management entities



Status of the FIRMS Data coverage

Marine Resources and Fisheries

FIRMS database currently covers:

- **shared stocks under RFBs mandates**

but also

- **national stocks / assessment units**

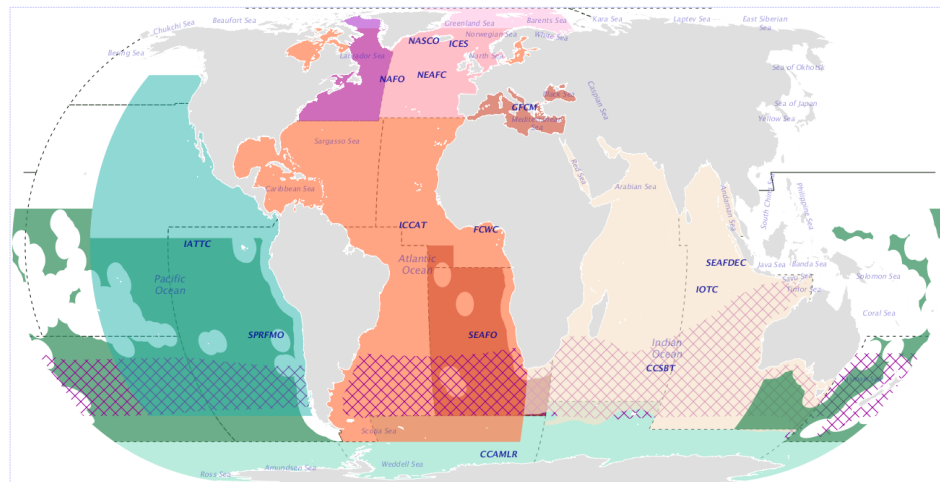
- **status of national fisheries**

Under RFBs
monitoring
capacity

- Published **inventory** of **1479** stocks and **738** fisheries

- Published **status reports** for about **600** stocks and **250** fisheries

→ about 2 third of identified records with no published status





FIRMS products & services in support of fishery management

As a dissemination system, FIRMS facilitates easy access to / helps understanding

- ✓ public information on status and trends,
- ✓ through simplified formats /visual features, such as
- ✓ traffic light, and variety of embeddable information products

One input many outputs

- ✓ Marine Resource & Fishery Inventories (Excel)
- ✓ Standards and guidelines
- ✓ Fact Sheets
- ✓ Search interfaces
- ✓ Map viewer
- ✓ Web services (downloads, synopses, etc.)



FIRMS products & services in support of fishery management

FIRMS Products & Services

- Functional for **Decision Support System** or other policy frameworks
- **Information sharing** facilitating a stepwise approach towards statistics data sharing using agreed standards (e.g. regional database)
- Tracking history of fishery/stocks **status** to provide **trends**



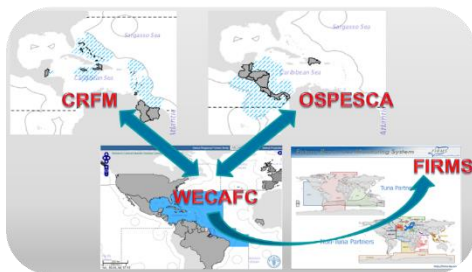


Food and Agriculture Organization
of the United Nations

WECAFC – FIRMS Partnership

Strengthen the data collection and research process in
support of fisheries management in the Caribbean

The WECAFC-FIRMS Partnership:
a collaborative framework for data sharing

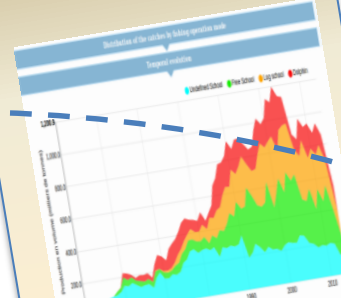


Data supply
Chain

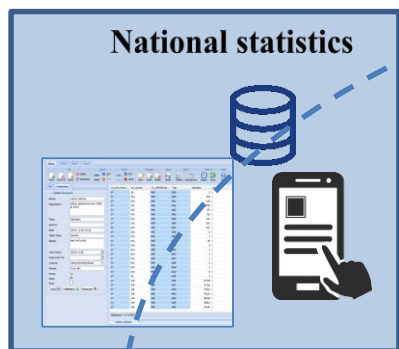
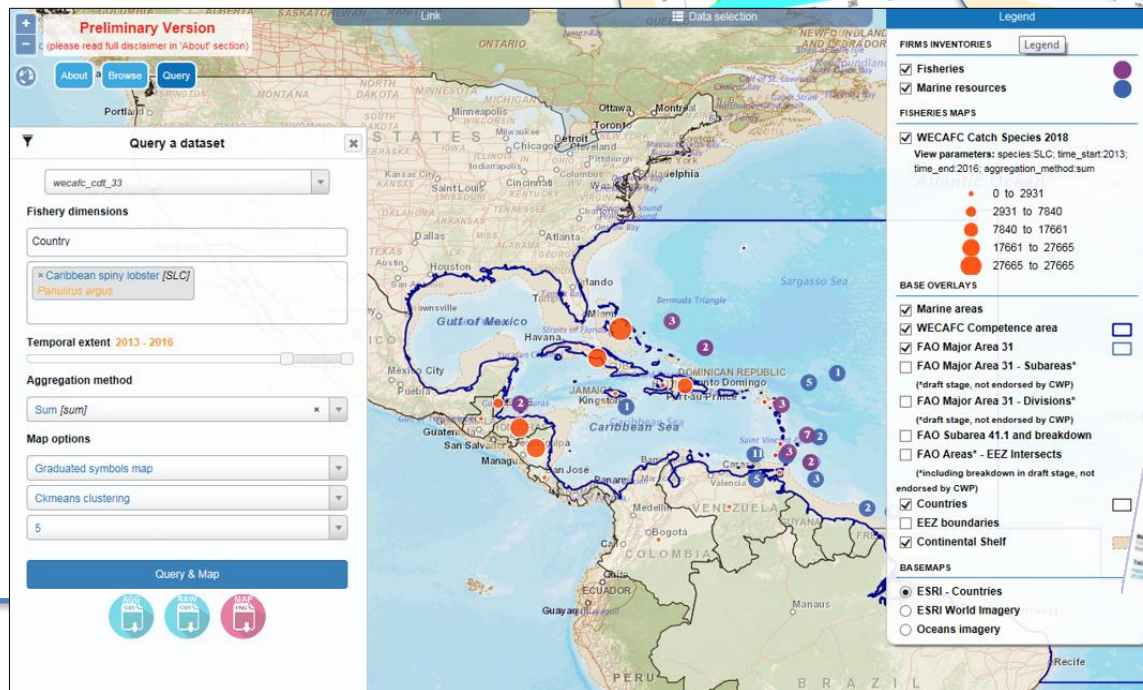
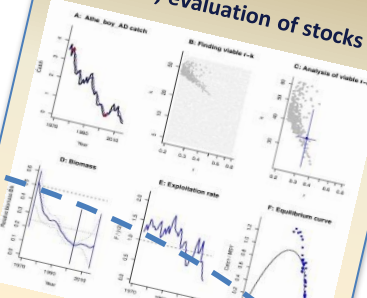
National statistics



Trend tracking

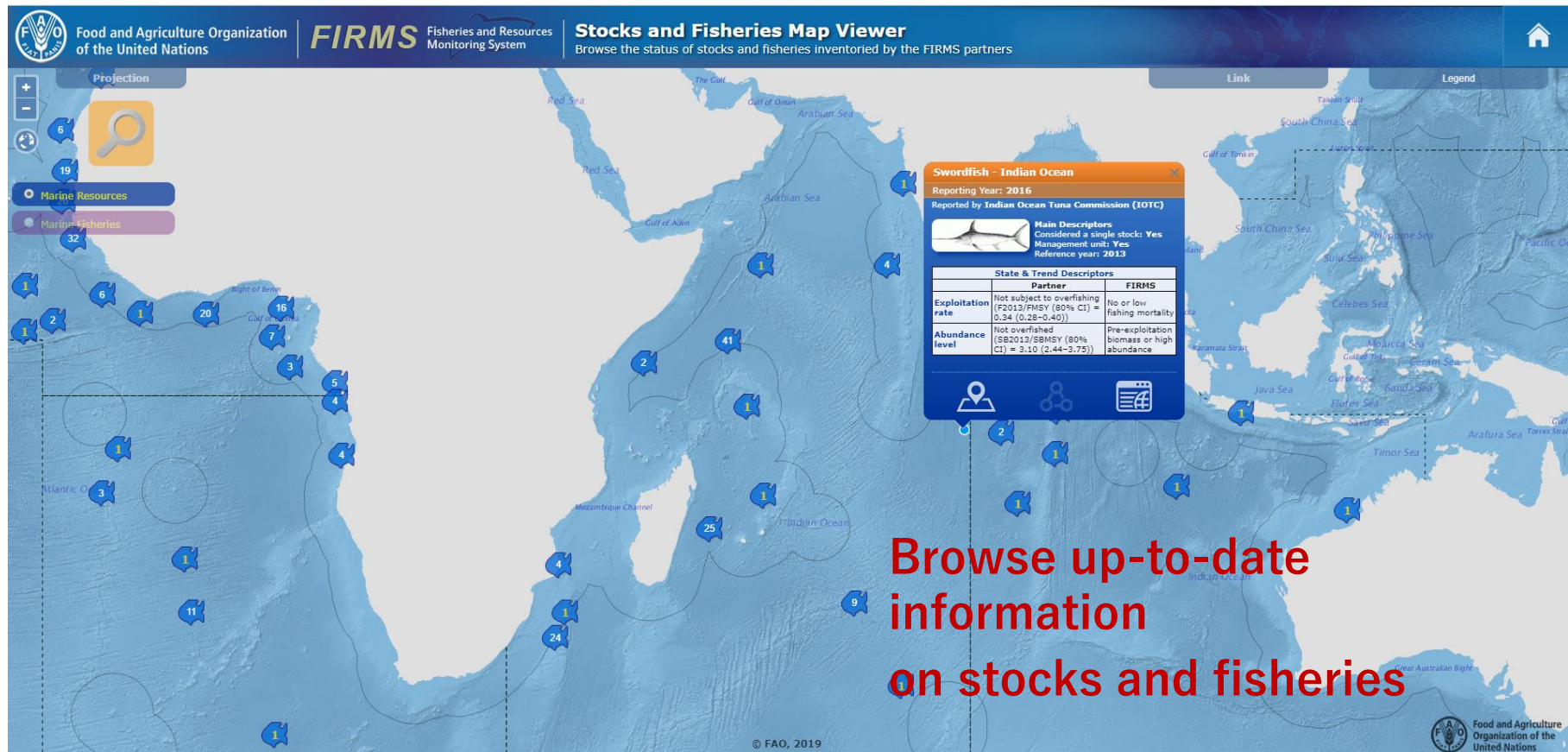


Analysis, evaluation of stocks



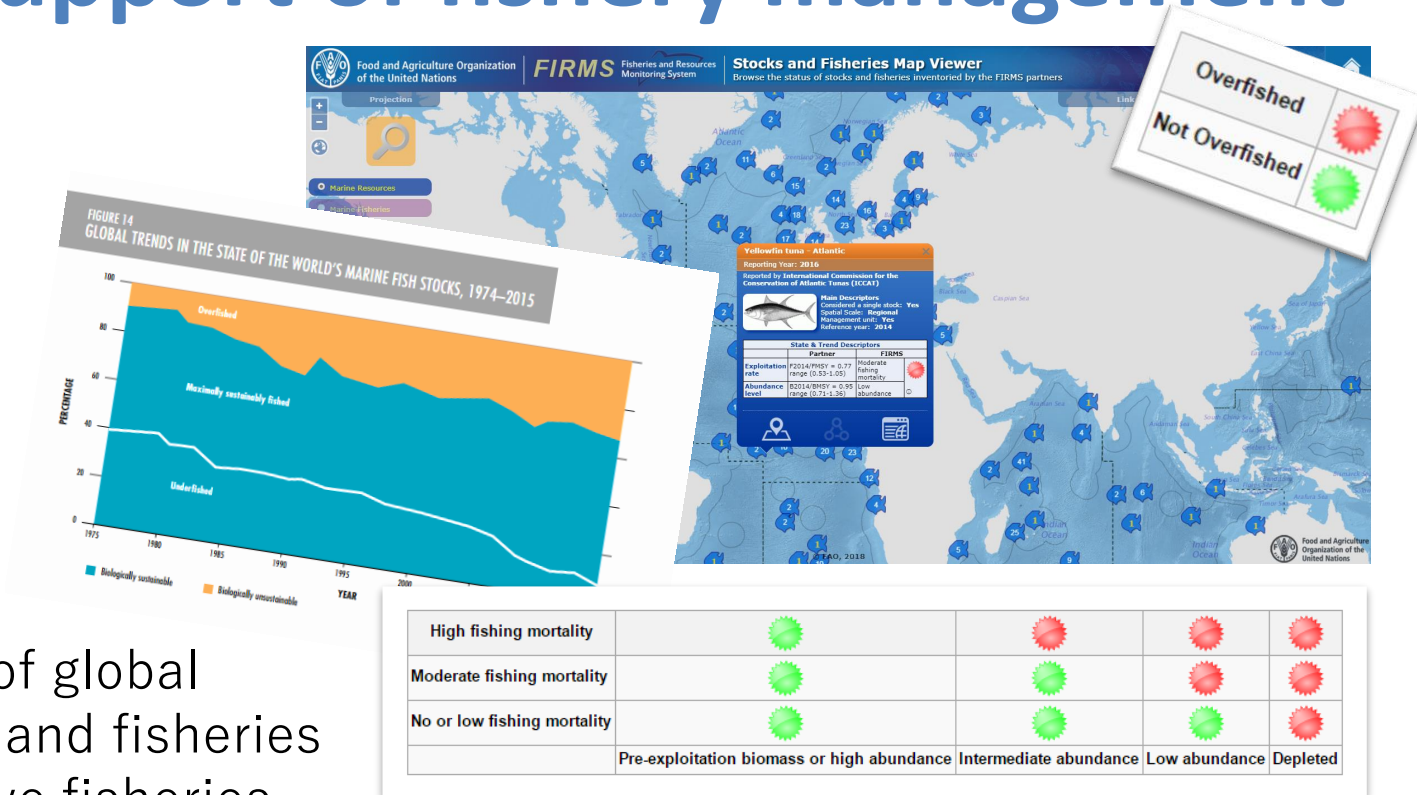


FIRMS products & services in support of fishery management



FIRMS products & services

in support of fishery management



State and trends of global marine resources and fisheries to develop effective fisheries policies and management plans



More about the FIRMS Partnership

- **Data confidentiality:** FIRMS deals with public data only, Partners fully control the workflow and gives final clearance to what can be published.

Two types of membership arrangements

- **Partnership:** a true FIRMS member - assist in the development of FIRMS through a voting process (e.g. deliberate on standards, select FIRMS main activities, advice for joining projects); attend the FIRMS Steering Committee meetings (about once every 18-24 months). Online remote participation to FIRMS meetings is also usually provided.
- **Collaborative:** a FIRMS resource member - no voting rights and meeting attendance is not necessarily expected.

In both arrangements the data and information contributed to the FIRMS and the way it is displayed is the same.



شكرا

謝謝

Merci

Thank You

Благодарю

¡Muchas Gracias!

FIRMS-Secretariat@fao.org
<http://firms.fao.org>