



FIRMS

FISHERIES AND RESOURCES
MONITORING SYSTEM

Status of RECOFI-FIRMS Inventory

Agenda item 6

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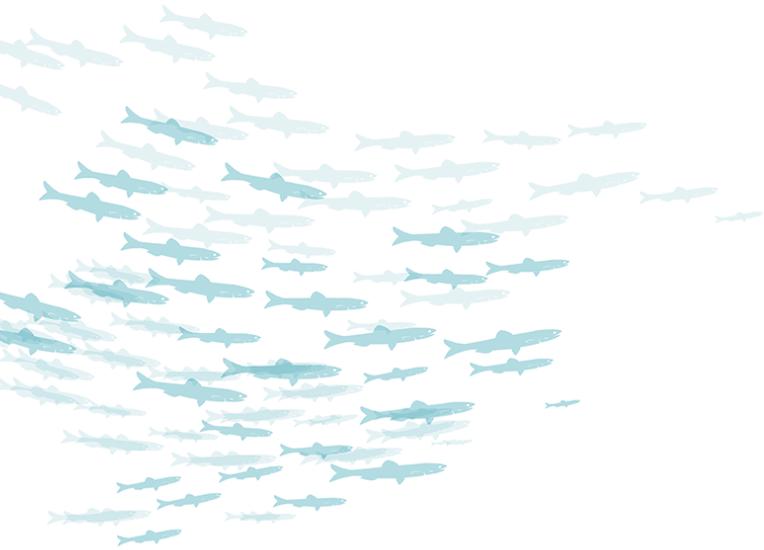
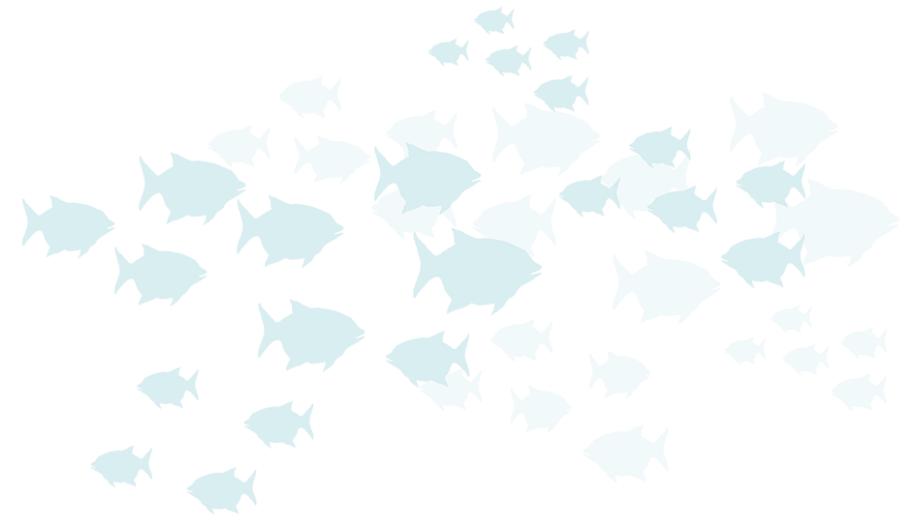
✉ FIRMS-Secretariat@fao.org





Outline

- **Recalling RECOFI-FIRMS past activities**
- **Status of the RECOFI stocks and fisheries inventories**
- **Ongoing activities**
- **RECOFI to FIRMS Production workflow**



Recalling RECOFI-FIRMS past activities

RECOFI-FIRMS collaboration initiated in 2011. Since then, 4 national fisheries inventories were compiled and published (2013). Marine Resources inventories are still in draft status. National focal points need further engagement.

- Report of the Sixth Session of the Regional Commission for Fisheries. Rome, 10-12 May 2011 <http://www.fao.org/docrep/014/i2377b/i2377b00.pdf>
- **RECOFI-FIRMS workshop of 2011** <http://www.fao.org/3/i2353e/i2353e00.pdf> - Formalize an inventory of marine resources/stocks and fisheries for the RECOFI) region at both the national and regional levels
- RECOFI WGFM 6 - November 2012 <http://www.fao.org/docrep/017/i3200e/i3200e.pdf>
 - Par. 46: Agreed that the process should start through national contributions, with a focus on the list of RECOFI priority species.
 - From Partnership Arrangement Annex 2: Unlike the fisheries inventory, the primary (and corporate) ownership of the Marine resources inventory lies with RECOFI. In this respect, the regional priority is for developing an inventory focusing on the priority species.
- FIRMS FSC8 - February 2013 - ftp://ftp.fao.org/fi/DOCUMENT/FIGIS_FIRMS/2013/report.pdf
 - Par 20: Mr. Al Jabri Yaqoob Bin Salim noted that RECOFI's Annex 2 will be discussed at their 7th Session and that more will be known at the next commission meeting.
- RECOFI Commission 7 - May 2013 - <http://www.fao.org/docrep/019/i3402b/i3402b.pdf>
 - Par. 49 to 52: postpone decision on 52.3 statistical area breakdown, approve fishery inventory as a whole, and maintain the status quo in terms of its participation in FIRMS.
- RECOFI WGFM 7 - November 2013 <http://www.fao.org/3/a-i3711e.pdf> Seventh Meeting of the Working Group on Fisheries Management
 - **Par 11: dissemination of RECOFI fisheries fact sheets**

Recalling RECOFI-FIRMS past activities

- RECOFI - Tenth Meeting of the Working Group on Fisheries Management (WGFM-10) Qatar, Doha, 6 - 8 December 2016
 - FIRMS presented a document RECOFI/WGFM10/2016/7 "**Update of RECOFI marine resources and fisheries inventory in FIRMS**": http://www.fao.org/fi/static-media/MeetingDocuments/RECOFI/RECOFI_2016_10th/7e.pdf
 - WGFM Report <http://www.fao.org/3/a-i6948e.pdf> "The WGFM acknowledged the benefits of developing FIRMS Marine Resources for the RECOFI region and recommended the initiation of the process focusing on the Spanish mackerel and shrimps as priority species." See par. 26-28
- RECOFI-ROPME Coordination Meeting in preparation of the 9th Session of RECOFI - January 2017
- RECOFI Commission 9 - May 2017
- M. Taconet attended the meeting and highlighted the role of FIRMS in the work towards **SDG 14.4** as well as, under Recommendation RECOFI/6/2011/1, how the existing RECOFI-FIRMS fisheries inventories contribute towards understanding the structure of the exploitation of fishery resources in a management context
 - Implementation status of RECOFI decisions and recommendations
 - RECOFI commission meeting <http://www.fao.org/3/a-i7803b.pdf> (participation of RECOFI in Copenhagen) – See List of National Focal Points Appendix 6
 - FIRMS Meeting doc: http://www.fao.org/fi/static-media/MeetingDocuments/RECOFI/RECOFI_2017_9th/6e.pdf
- FIRMS FSC10 - June 2017
 - Attended by Iran RECOFI focal Point Dr Tooraj Valinassab, with whom the FIRMS Secretariat discussed steps forward.
- RECOFI Secretariat shared the RECOFI-FIRMS inventory in July 2017 for **new data submission**

Recalling RECOFI-FIRMS past activities

- September 2017 - RECOFI Secretariat sent a reminder on FIRMS inventories
- November 2017 - A draft inventory was shared with Iran
- January 2019 - FIRMS Secretariat sent RECOFI-FIRMS data call
- RECOFI WGFM 11 - February 2019 <http://www.fao.org/fishery/nems/41101/en> Report: <http://www.fao.org/3/ca4304en/ca4304en.pdf>
 - FIRMS Secretariat attended the RECOFI WGFM 11 meeting presenting a meeting document with status of work submitting **TORs for regional focal points** for the compilation of marine resources and fisheries. <http://www.fao.org/fi/static-media/MeetingDocuments/RECOFI/WGFM/2019/8e.pdf>
 - TORs were approved, National Focal points for MDR and FIRMS are the same
 - WGFM agreed on splitting the FAO subarea 51.3 into the divisions 51.3.1 – Oman Sea and 51.3.2 – Arabian Sea (South Western).
- RECOFI 10th Session – July 2019 <http://www.fao.org/3/cb2193b/cb2193b.pdf> The Commission **endorsed** the proposed **geographic sub-divisions**: FAO subarea 51.3 divided into the divisions 51.3.1 – Oman Sea and 51.3.2 – Arabian Sea (South Western).
- RECOFI-FIRMS **Data Call workshop**: updating stocks and fisheries inventories 2-3 August 2021

RECOFI Fisheries – status of the inventory

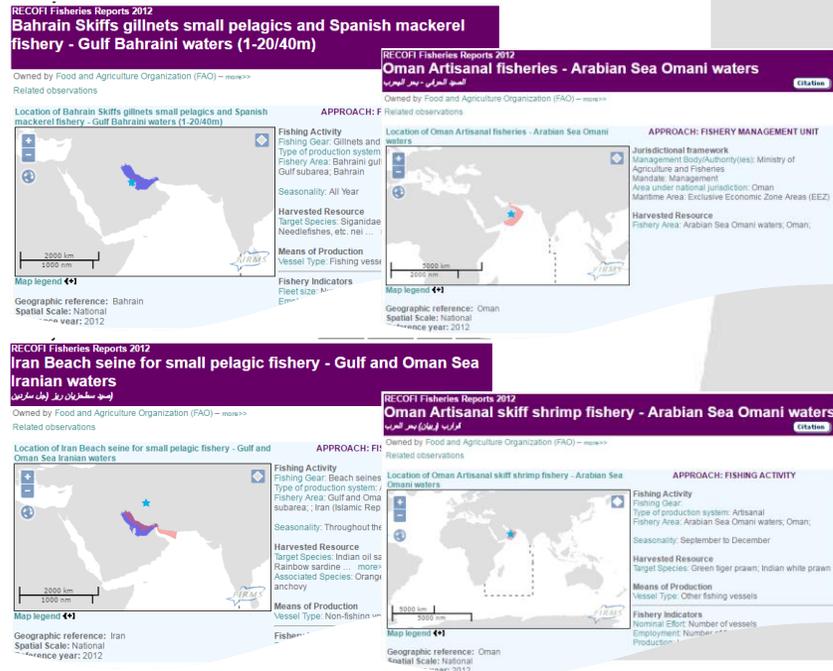
68 RECOFI-FIRMS Fishery factsheets have been published by 4 countries

- BAHRAIN (11)
- IRAN (15)
- OMAN (28)
- QATAR (14)

<http://firms.fao.org/firms/search/institution/recofi/en>

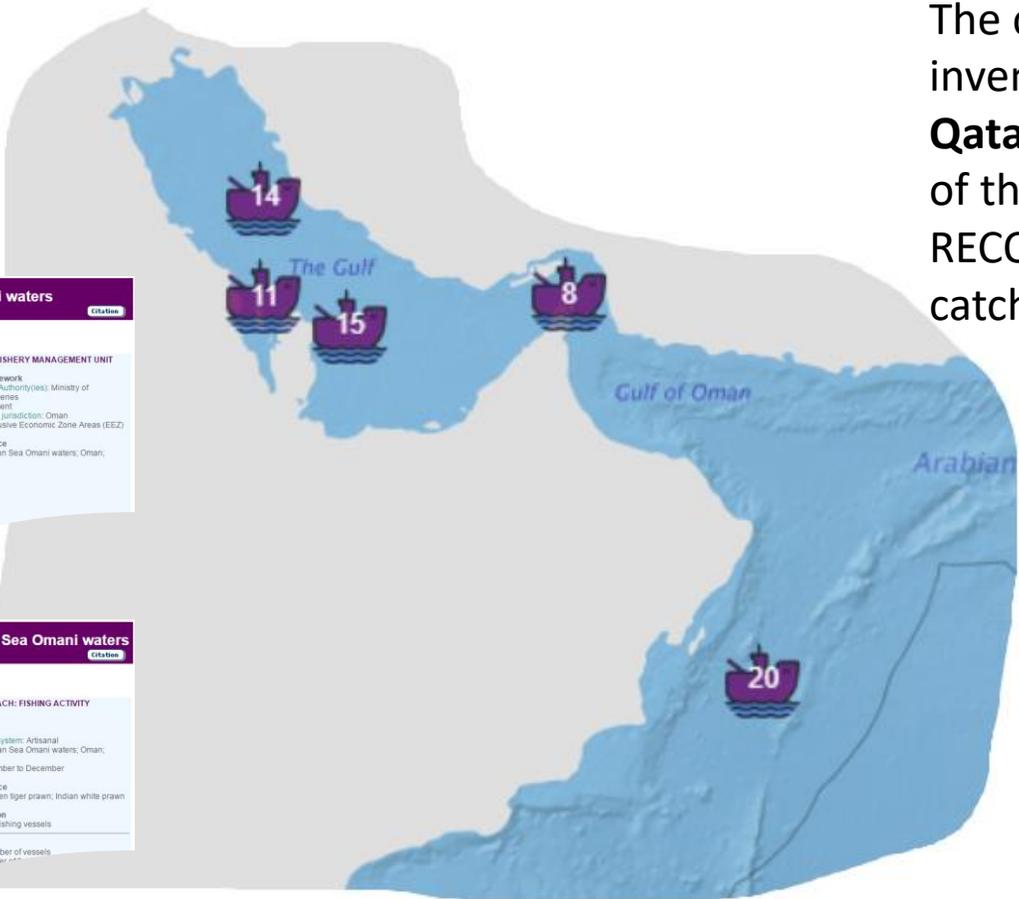
FIRMS Data Coverage within RECOFI area – May 2013

The coverage of the available four national inventories (**Bahrain, Iran, Oman, Qatar**) done is estimated to be about 80% of the total RECOFI fisheries (~80% of total RECOFI water area, and ~80% of 2010 total catches in the RECOFI area)



The block contains four screenshots of RECOFI Fisheries Reports 2012 factsheets:

- Bahrain Skiffs gillnets small pelagics and Spanish mackerel fishery - Gulf Bahraini waters (1-20/40m)**: Includes details on fishing gear (gillnets), fishery area, and target species like Siganidae and Needlefishes.
- Oman Artisanal fisheries - Arabian Sea Omani waters**: Details on fishing gear, fishery area, and target species like Green tiger prawn and Indian white prawn.
- Iran Beach seine for small pelagic fishery - Gulf and Oman Sea Iranian waters**: Details on fishing gear (beach seines), fishery area, and target species like Indian oil sardine and Rainbow sardine.
- Oman Artisanal skiff shrimp fishery - Arabian Sea Omani waters**: Details on fishing gear (skiff), fishery area, and target species like Green tiger prawn and Indian white prawn.

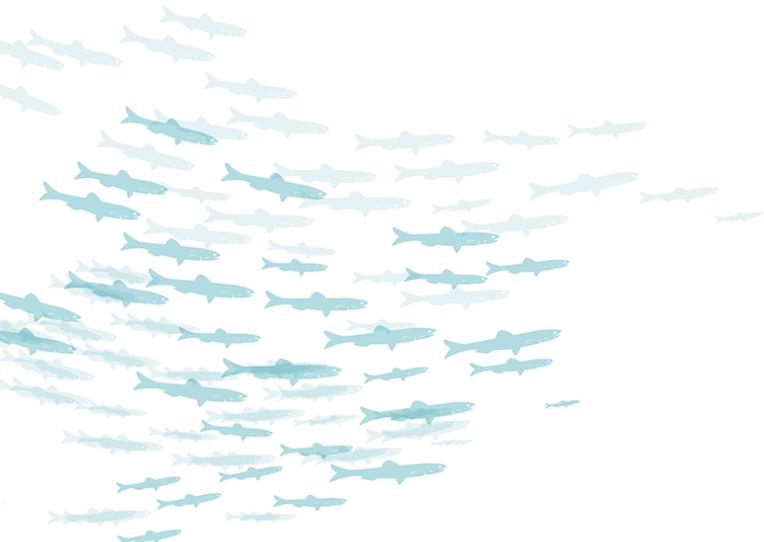


Fisheries inventory - Ongoing activity

Fisheries inventory

Former inventories in Excel format are available for updates (Bahrain, Iran, Oman, Qatar).
Template is provided for new submissions by other RECOFI Member States.

Please access the **RECOFI-FIRMS fisheries inventory** here
<http://www.fao.org/fishery/nems/41316/en>



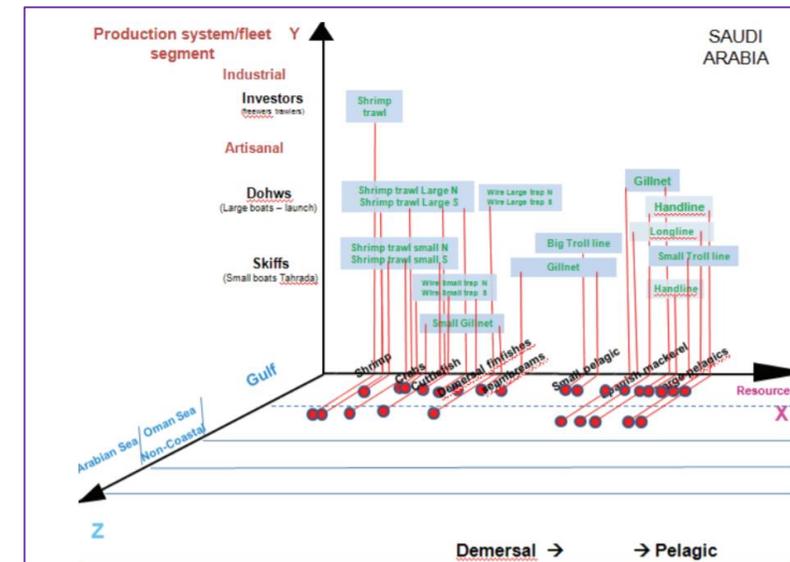
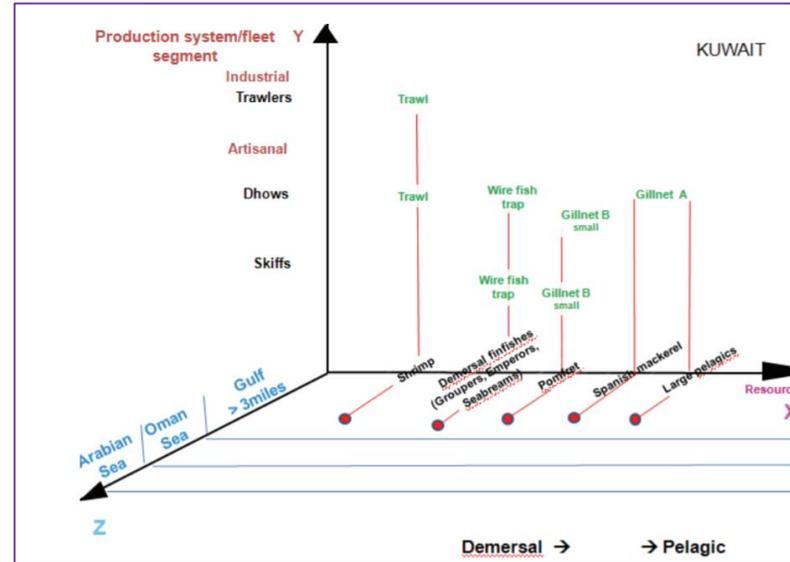
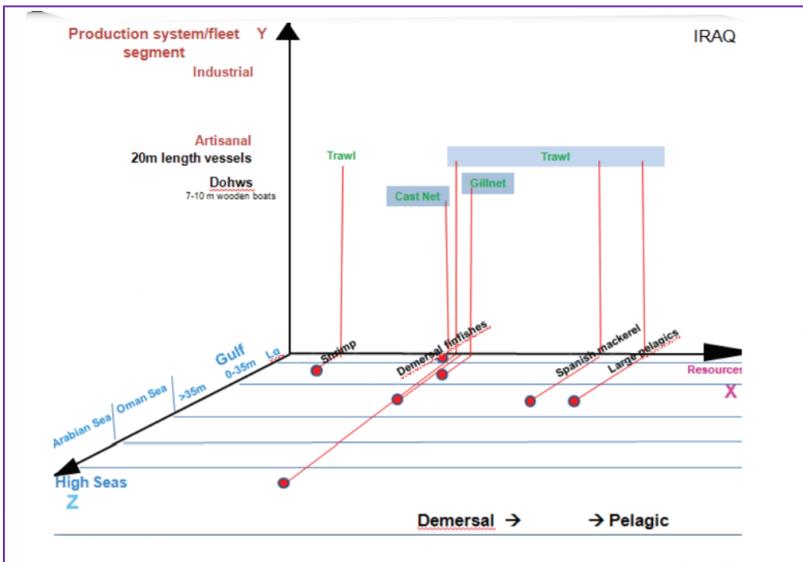
The screenshot displays the RECOFI Fisheries Reports 2012 web interface. It features three main panels:

- Top Panel:** "RECOFI Fisheries Reports 2012" header with a search bar and navigation options.
- Left Panel:** "Qatar Artisanal dhows pelagic fishery - Gulf Qatari waters, 2012". Includes a map of the Gulf region, geographical references, and a list of related fisheries.
- Right Panel:** "Fishery Fact Sheet" for "Bahrain Skiffs trawl shrimps fishery - Gulf Bahraini waters (1 - 20 m), 2012". This panel contains detailed information:
 - Map:** A map of the Gulf region with a red dot indicating the fishery location.
 - Geographic references:** Includes coordinates and a map scale.
 - Means of Production:** Details on the fishing gear used.
 - Fishing Area:** Information on the specific fishing grounds.
 - Related Fisheries:** A list of other fisheries in the region.
 - Seasonality:** Information on the fishing season.
 - Captured Species:** A list of species caught, including scientific names and common names.
 - Associated Species:** Information on species associated with the fishery.

Fisheries inventory - Ongoing activity

Fisheries inventory

In the FIRMS – RECOFI Workshop (2011) fishing activities were plotted for each country along three axes: type of production system, type of gear, fishing area. (See annex D of the report <http://www.fao.org/3/i2353e/i2353e00.pdf>)



RECOFI Marine Resources Status of the inventory & Ongoing activity

Marine resources inventory

- A draft inventory of **Marine Resource** records was previously constructed in 7 countries and one shared stock (Narrow-banded Spanish mackerel) for the RECOFI region:
 - The Inventory has been further updated by the FIRMS Secretariat with assessment information (see Appendix 6 page 14 Report RECOFI WGFM11 2019 <http://www.fao.org/3/ca4304en/CA4304EN.pdf>).
- BAHRAIN (14)
 - IRAN (16)
 - IRAQ (9)
 - KUWAIT (16)
 - OMAN (20)
 - QATAR (19)
 - SAUDI ARABIA (11)
 - RECOFI AREA (1)

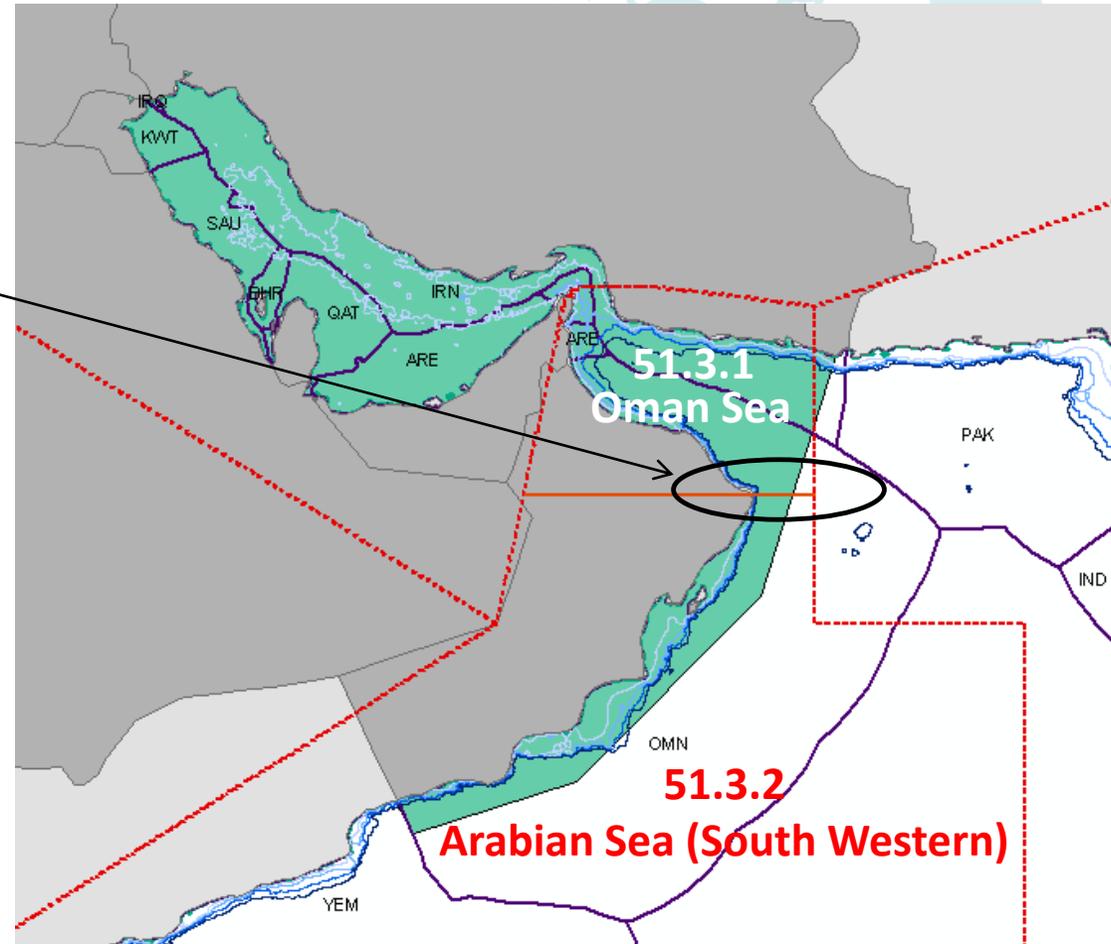
*“WGFM10 (Doha, Qatar - December 2016) acknowledged the **benefits** of developing FIRMS Marine Resources of regional relevance for the RECOFI region and recommended the **initiation of the process** focusing on the Spanish mackerel and shrimps as priority species.”*

Members are to please complete the marine resources inventory accordingly.

Please access the **RECOFI-FIRMS fisheries inventory** here <http://www.fao.org/fishery/nems/41316/en>

RECOFI 10th Session Adopted boundary between new divisions 51.3.1 and 51.3.2

“a horizontal line passing through the point Latitude 22 26N and Longitude 59 50E which determines in the Rasol - Had region the coastal border between the Oman Sea and the Arabian Sea, and extending eastward up to the vertical limit of FAO sub-areas 51.3 and 51.4”



FAO statistical subarea 51.3 “Western Arabian Sea”

RECOFI to FIRMS Production workflow

FISHERY REFERENCE				FISHERY TITLE				PERSPECTIVE				FISHERY AREA					
FISHERY ID	Inventory identifier	Parent fishery	Related Fisheries Fisheries switching activity seasonally or targeting the same fishery Same fishing activity managed under the same management unit Fishing activities managed under the same management unit	Local title		English Title	Fishery standard title	Geographic reference	Geographic reference - Land area code system	Geographic reference - Land area code	Geographic reference - Water area code system	Geographic reference - Water area code	Reporting Scale	Thematic approach	Fishery area name	Primary Georeferences	
				Title	Language											Georeferencing System Name	Area Codes in this system
680	IRN03	IRN02	KWT, IRQ	(ف) صید تزل میگو	FA	Industrial trawlers shrimp fishery - Gulf Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf Iraniceez	IRN		
681	IRN04	IRN02		(ب) صید سطحیان دیرت	FA	Industrial purse seiners large pelagic fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
682	IRN05	IRN02	KWT, IRQ (Some species)	(ج) صید منابع کفزی	FA	Industrial bottom trawlers demersal resource fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
683	IRN06	IRN02	OMA	(د) صید فانوس ماهیان (میکنولیده)	FA	Industrial midwater trawl lanternfishes fishery - Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Oman Sea eez	IRN		
686	IRN09	IRN08		(الف) صید تزل میگو توسط لنج ها	FA	Dhows trawl shrimp fishery - Gulf Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf Iraniceez	IRN		
687	IRN10	IRN08		(ب) صید تزل میگو توسط فایق ها	FA	Skiffs trawl shrimp fishery - Gulf Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf Iraniceez	IRN		
689	IRN12	IRN11		(الف) صید سطح یان دیرت به روش صید گوشگیر توسط لنج ها	FA	Dhows gillnet large pelagic fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
690	IRN13	IRN11		(ب) صید سطح یان دیرت به روش صید ترولینگ و قلاب توسط لنج ها	FA	Dhows trolling lines large pelagic fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
691	IRN14	IRN11		(ج) صید سطح یان دیرت به روش صید گوشگیر توسط فایق ها	FA	Skiffs gillnet large pelagic fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
692	IRN15	IRN11		(د) صید سطح یان دیرت به روش صید ترولینگ و قلاب توسط فایق ها	FA	Skiffs trolling lines large pelagic fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
694	IRN16	IRN16		(الف) صید سطحیان بزر (پرسای دو فایقی)	FA	Pair-boats purse seiners small pelagic fishery - Gulf Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf Iraniceez	IRN		
696	IRN18	IRN17		(الف) صید کفزیان یا گرگر توسط لنج ها	FA	Dhows wire trap, plastic cage demersal resources fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
697	IRN19	IRN17		(ب) صید کفزیان یا گرگر توسط فایق ها	FA	Skiffs wire trap demersal resources fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
699	IRN21	IRN20		(الف) صید سطحیان بزر (جل سارین)	FA	Beach seine for small pelagic fishery - Gulf and Oman Sea Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf and Ceez	IRN		
700	IRN22	IRN20		(ب) صید منابع کفزی (مشتا)	FA	Barrier nets for demersal resources fishery - Gulf Iranian waters	Iran	iso3	IRN			National	Fishing Acti	Gulf Iraniceez	IRN		

RECOFI Fisheries Reports 2012
Iran Barrier nets for demersal resources fishery - Gulf Iranian waters
 صید منابع کفزی (مشتا)
 Citation

Owned by Food and Agriculture Organization (FAO) – more>>
 Related observations

Location of Iran Barrier nets for demersal resources fishery - Gulf Iranian waters



APPROACH: FISHING ACTIVITY

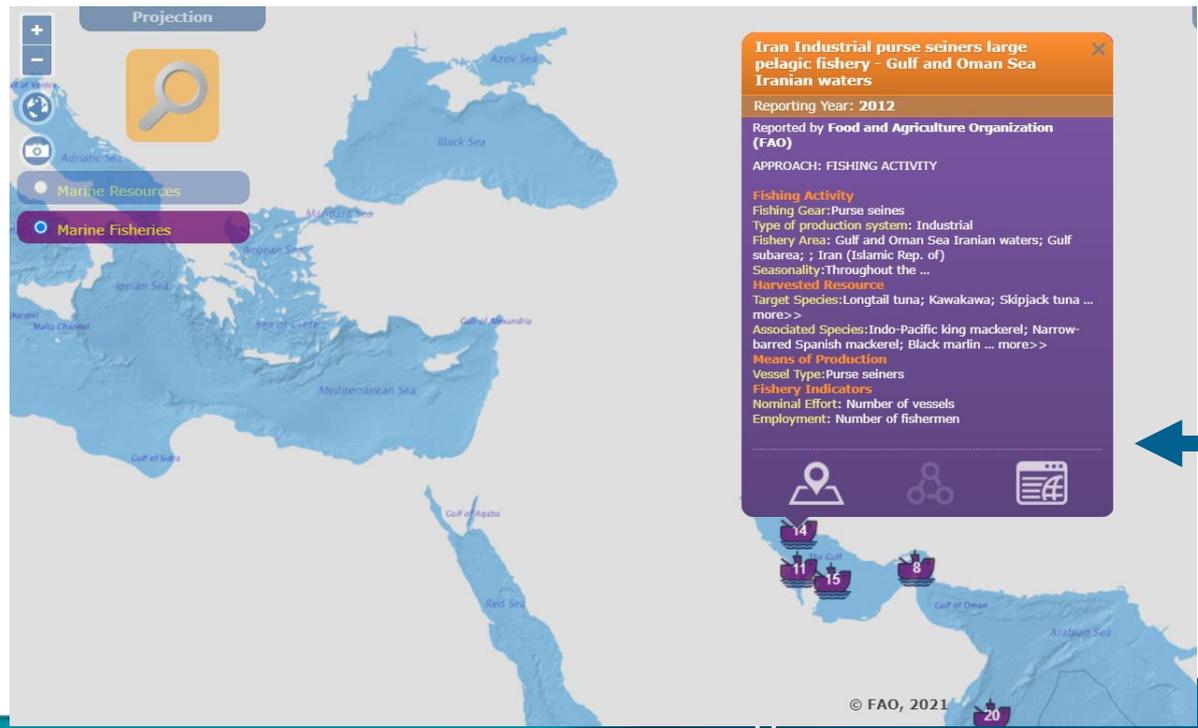
Fishing Activity
 Fishing Gear: Barriers, fences, weirs, etc.
 Type of production system: Artisanal
 Fishery Area: Gulf Iranian waters; Gulf subarea; Iran (Islamic Rep. of)
 Seasonality: June-March (Mainly ...)

Harvested Resource
 Target Species: Lizardfishes nei; Threadfin and dwarf breams nei; Haemulidae ... more>>
 Associated Species: Groupers, seabasses nei; Snappers, jobfishes nei; Emperors (=Scavengers) nei ... more>>

Means of Production
 Vessel Type: Non-fishing vessels nei

Fishery Indicators
 Employment: Number of fishermen
 Production: Landed Volume

Geographic reference: Iran
Spatial Scale: National
Reference year: 2012



Iran Industrial purse seiners large pelagic fishery - Gulf and Oman Sea Iranian waters

Reporting Year: 2012

Reported by Food and Agriculture Organization (FAO)

APPROACH: FISHING ACTIVITY

Fishing Activity
 Fishing Gear: Purse seiners
 Type of production system: Industrial
 Fishery Area: Gulf and Oman Sea Iranian waters; Gulf subarea; ; Iran (Islamic Rep. of)
 Seasonality: Throughout the ...

Harvested Resource
 Target Species: Longtail tuna; Kawakawa; Skipjack tuna ... more>>
 Associated Species: Indo-Pacific king mackerel; Narrow-barred Spanish mackerel; Black marlin ... more>>

Means of Production
 Vessel Type: Purse seiners

Fishery Indicators
 Nominal Effort: Number of vessels
 Employment: Number of fishermen

From Member States,
 to RECOFI,
 to FIRMS

Updating inventories

FIRMS Secretariat launches a **data call**



National Focal Points **update** their latest available excel based national fisheries records, **add** in the inventory any new relevant national fisheries, and remove extinct fisheries if any



Data harmonization, and quality checks including consistency and alignment with the MDR reported data on catch and effort



FIRMS Secretariat processes it **storing** in the database and **producing** factsheets, geospatial products and web services

List of RECOFI National Focal Points	
Country	RECOFI-FIRMS National Focal Points
BAHRAIN (KINGDOM OF)	Bassam ALSHOWAIKH Directorate of Fisheries Ministry of Municipalities Affairs and Urban Planning E-mail: bassam_sh11@yahoo.com
IRAN (ISLAMIC REPUBLIC OF)	Shapour KAKOULAKI Prof., Associate Iran Fisheries Organization, Deputy Of Fisheries and Fishing Ports Email: bsh443@gmail.com [updated 2019]
IRAQ	Sadad TALAT Chief of Fisheries Department Ministry of Agriculture/ Directorate of Animal Resource E-mail: fisheries_iraq2005@yahoo.com
KUWAIT	Modi Sabah AL-FADHIL Senior Marine Researcher, Head of Marine Research Department Public Authority of Agricultural Affairs and Fish Resources E-mail: hetsadary@hotmail.com
OMAN (SULTANATE OF)	Hussain Mohamed ALMUSCATI Director of Development and Management of Fisheries Resources Ministry of Agriculture and Fisheries E-mail: hmuscati@yahoo.com [confirmed 2019]
QATAR	Jassem AL-MOHAMADY Assistant Director Department of Fisheries, Ministry of Municipality & Environment E-mail: jalmohamady@mme.gov.qa
SAUDI ARABIA (KINGDOM OF)	Nabil I. A FITA General Manager Fisheries Ministry of Agriculture E-mail: nabil_fit@hotmail.com
UNITED ARAB EMIRATES (UAE)	Salah AL RAYSSI Director Fisheries Wealth Authority, Ministry of Environment and Water E-mail: saalrayssi@moev.gov.ae

National Focal Points

- Contacts (same as MDR)
- TORs

<http://www.fao.org/3/ca4304en/ca4304en.pdf>

List of RECOFI National Focal Points	
Country	RECOFI-FIRMS National Focal Points
BAHRAIN (KINGDOM OF)	Bassam ALSHOWAIKH Directorate of Fisheries Ministry of Municipalities Affairs and Urban Planning E-mail: bassam_sh11@yahoo.com
IRAN (ISLAMIC REPUBLIC OF)	Shapour KAKOULAKI Prof., Associate Iran Fisheries Organization, Deputy Of Fisheries and Fishing Ports Email: bsh443@gmail.com [updated 2019]
IRAQ	Sadad TALAT Chief of Fisheries Department Ministry of Agriculture/ Directorate of Animal Resource E-mail: fisheries_iraq2005@yahoo.com
KUWAIT	Modi Sabah AL-FADHIL Senior Marine Researcher, Head of Marine Research Department Public Authority of Agricultural Affairs and Fish Resources E-mail: hesadary@hotmail.com
OMAN (SULTANATE OF)	Hussain Mohamed ALMUSCATI Director of Development and Management of Fisheries Resources Ministry of Agriculture and Fisheries E-mail: hmuscati@yahoo.com [confirmed 2019]
QATAR	Jassem AL-MOHAMADY Assistant Director Department of Fisheries, Ministry of Municipality & Environment E-mail: jalmohamady@mme.gov.qa
SAUDI ARABIA (KINGDOM OF)	Nabil I. A FITA General Manager Fisheries Ministry of Agriculture E-mail: nabil_fita@hotmail.com
UNITED ARAB EMIRATES (UAE)	Salah AL RAYSSI Director Fisheries Wealth Authority, Ministry of Environment and Water E-mail: saalrayssi@moeuw.gov.ae

Terms of Reference for RECOFI-FIRMS Regional Focal Point

Within the coverage area of the Commission, the RECOFI-FIRMS Regional Focal Point (RFP) will:

- Promote and support the activities of RECOFI-FIRMS, especially in the intersessional periods;
- Encourage RECOFI-FIRMS National Focal Points (NFPs) to initiate, update and enrich their national fisheries records, and facilitate this work.
- Facilitate the identification, collection, validation of national and regional marine resources/stocks records and their updating in the RECOFI-FIRMS Marine Resources inventory;
- Facilitate the exchange of information related to stocks and fisheries among member countries, and more generally promote and enhance regional cooperation among Members; and
- RECOFI-FIRMS RFP will be the main interface on marine fisheries and resource/stocks matters between the RECOFI-FIRMS NFPs and the FIRMS Secretariat. As such will ensure an updated list of functional NFPs.

Expected outputs:

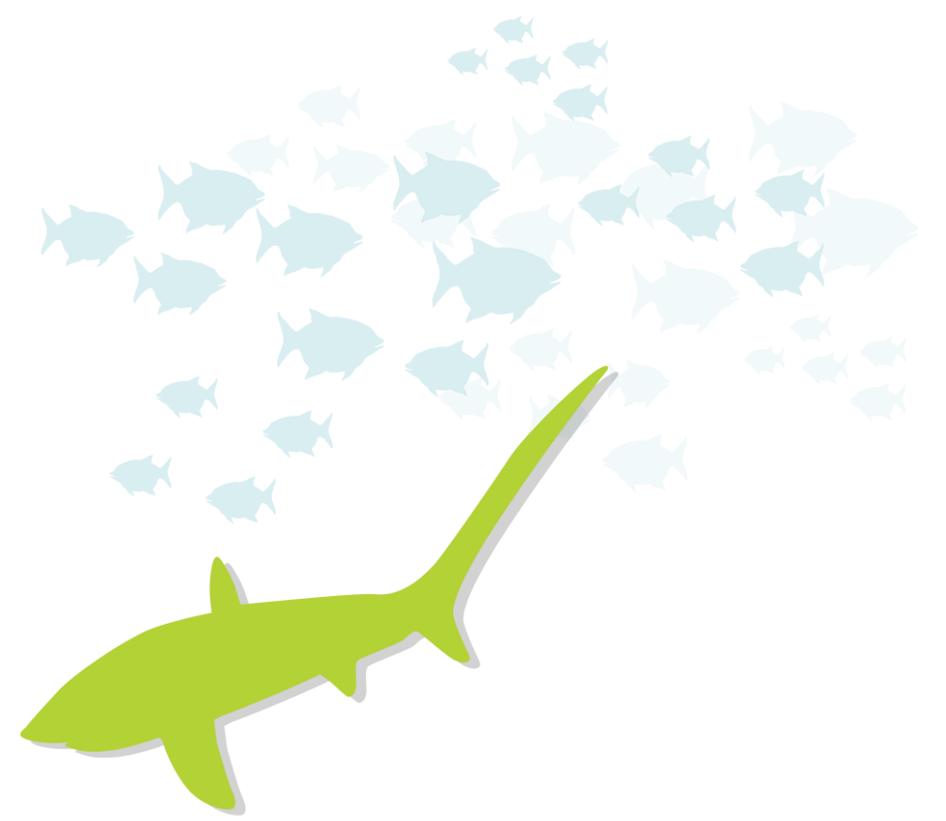
- RECOFI-FIRMS Marine Resource inventory developed;
- RECOFI-FIRMS Marine Resource inventory yearly updated, enriched and validated; and - A functional list of NFPs.

Furthermore, the RECOFI-FIRMS RFP will ensure that the RECOFI-FIRMS NFPs are briefed fully on the activities of FIRMS and, as appropriate, provide advice on the Commission's FIRMS related programme of work and budget.

To ensure that the RECOFI-FIRMS RFP is in a position to undertake these responsibilities, they should be experienced fisheries data managers, fisheries statisticians or fisheries researchers with regular contact with the RECOFI-FIRMS NFPs.

The RECOFI WGFM may review these terms of reference from time-to-time and make recommendations for their amendment.

Questions?





Thank you ▪ Merci
Благодарю ▪ ¡Muchas gracias!
謝謝 ▪ شكرا

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