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REGIONAL FISHERIES COMMISSION

Food and Agriculture
Organization of the
United Nations**WORKING GROUP ON FISHERIES MANAGEMENT****Thirteenth MEETING****9-10 October 2023
VIRTUAL****Status of the implementation of the RECOFI Recommendation on Minimum Data Reporting****Executive Summary**

This document aims to provide an update on the progress made on data submission with regards to RECOFI Recommendation RECOFI/6/2011/1 Minimum Data Reporting.

The WGFM is invited to:

- Review the progress made, in particular noting the datasets received so far and the implementation of the recommendations.
- Advise accordingly to the way forward.

Introduction

1. This document aims to provide an update on the progress made on data submission with regards to RECOFI Recommendation RECOFI/6/2011/1 Minimum Data Reporting (MDR) (Appendix 1).

Background

2. The RECOFI Recommendation on Minimum Data Reporting was established as an initial part of process establishing a pragmatic management scheme based on an Ecosystem Approach to Fisheries Management with adaptive management procedures, the decision taken by the second meeting of the WGFM (Cairo, Egypt, 27-30 October 2008), endorsed by the fifth Session of the RECOFI (Dubai, United Arab Emirates, 12-14 May 2009). The FAO/RECOFI Regional Workshop on Stock Indicators and Stock Status Reporting (Tehran, Islamic Republic of Iran, 26–29 July 2009) reviewed data and statistics availability in the region and stock status reporting and recognized the lack of information commonly accessible through the Region. The sixth session of RECOFI (Rome, Italy, 10-12 May 2011) endorsed the Recommendation RECOFI/6/2011/1, entitled “Recommendation on minimum data reporting in the RECOFI area” (See Appendix E of the report of the sixth session of the RECOFI Commission <https://www.fao.org/3/i2377b/i2377b00.pdf>). The MDR Recommendation entered into force on 1 January 2012 after a two-year preparatory phase.

3. At the Eighth Session of RECOFI the Secretariat informed the Commission that the data reported under the RECOFI Recommendation RECOFI/6/2011/1 had become sufficient for providing an adequate basis for monitoring the status of fishing operations and resources and supporting for taking management decisions, and urged the Commission to establish a common database and an

agreed data access policy. At the ninth meeting of the WGFM (Kuwait City, State of Kuwait, 24-26 November 2015), the meeting discussed the convenience and feasibility of taking further steps towards actively utilizing these data, possibly beginning with the joint assessment of the kingfish and the development of operational management objectives and corresponding indicators.

4. Follow-up actions based on RECOFI workshop on the Minimum Data Reporting Regional Database (13 to 14 July 2021, see Appendix 2) discussions and needs were as follows:

- A FAO statistician consultant will analyse the submitted MDR data from 2012 (and previous years if available and depending on available time), collate, and identify issues in terms of gaps, duplications, aggregates, standards.
- Work will proceed by FAO to develop a pilot of the Regional Database (RDB), which include standard data submission format proposals (refer to document RECOFI/WGFM13/2023/8).
- Summarized recommendations from the workshops on MDR, FIRMS, and SDG14.4.1 will be presented to the next formal session of the WGFM (refer to document RECOFI/WGFM13/2023/8).
- Countries are generally encouraged to refer to best practices in data collection and to attend capacity building courses as appropriate.
- In support of the above point, RECOFI Secretariat will liaise with FAOSNG on the possibilities for RECOFI countries to participate in the UAE September 2021 course on fisheries and aquaculture statistics.

MDR dataset review report

5. To encourage best practices in data collection and enhance capacity building of country members, one-to-one meeting from June 2020 to September 2022 have been organised. The aims of the meetings were:

- to present the dataset review report analysis and recommendations to improve the reporting
- to prepare the data series workshop
- to present MDR and FIRMS templates and provide an opportunity for comments.

6. A report of RECOFI MDR datasets review was prepared and sent before the RECOFI workshop series held in Doha, Qatar, 22-29 September 2022. A review of all files submitted to RECOFI was done to analyze gaps in data and compare submitted data to the minimum data requirements defined for RECOFI countries members (Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates).

7. One of the main results was that the submissions need harmonization and standardization to fulfill the MDR template that has been implemented. Submitted files use very different formats. For most of the countries, recent data haven't been submitted yet. As time series are supposed to start in 2012, most of them are short, with an average of 3 years. National shrimp trawl regulations are missing in most cases.

8. Fishing effort indicators are the less well filled compared to other indicators. Catch is reported with an unequal level of detail. Catch aggregations rarely follow the MDR. Accurate information on species (ASFIS code or scientific name) is often missing. Concerning narrow-barred Spanish mackerel catch, total catch is provided at least, sometimes detailed by vessel type and by fishing gear. But catch is rarely related to the corresponding fishing effort. Fork length composition is not given by any country. Discards and by-catch are hardly ever reported.

9. In a second time, catch data from Fishstat Capture were compared to data submitted to RECOFI. They are coherent for only half of the countries. For the other half, the distance between both data sources can be important (with a factor 2 or 3). Data in FishstatJ are usually more recent than the last submitted data to RECOFI.

10. Lastly, data from FIRMS were compared to data submitted to RECOFI. FIRMS data and inventories initially concerned four countries (Bahrain, Iran, Oman, and Qatar) with data older than 2012. Along the data workshop series (2021-2022) new data were acquired for the RECOFI fisheries inventory and new fact sheets are about to be published (see doc. RECOFI/WGFM13/2023/8).

11. Harmonization is also required between the different sources of data to improve the coherence of the different statistical data.

The detailed recommendations for each country are presented in appendix 3 (extract from the MDR dataset review report).

Pilot of the Regional Database (RDB)

12. To develop a regional database (RDB), the need of more harmonized and standard data has been emphasized. A first draft of RECOFI MDR Data Submission Template was presented as initial concept at the MDR session of the data workshop in September 2022. Following this workshop, the template has been further developed with the goal to improve harmonization and compliance with regional and international standards and facilitate data reporting for the RECOFI Members. This work was based on RECOFI minimum data reporting (MDR) (refer to document RECOFI/WGFM13/2023/8 for more details). The MDR Excel Template can be considered representing the underlying logic for the submission of data, while the final format and structure (e.g. CSV) will be finalized after comments are provided by Members.

13. A RECOFI pilot regional database has been developed by the FAO Secretariat and a Kingfish subset of the MDR data submitted by members has been uploaded for testing and review by WGFM (refer to document RECOFI/WGFM13/2023/8 for details).

Status of the implementation of the Minimum Data Reporting

14. The available data submitted by country members are reported in the following table.

Table 1: Status of the RECOFI MDR submissions (Updated 6 October 2023)

	Bahrain	Iran	Iraq	Kuwait	Oman	Qatar	Saudi Arabia	UAE
2022	Pending	Yes* ²	Pending	Pending	Pending	Pending	Pending	Pending
2021	No	Yes* ²	No	No	No	No	No	No
2020	No	Yes* ²	No	No	No	No	No	Yes* ^{1,2}
2019	No	Yes* ²	No	Yes* ¹	No	No	No	Yes* ^{1,2}
2018	No	Yes* ²	No	No	No	No	No	Yes* ^{1,2}
2017	No	Yes* ²	No	No	Yes	Yes* ³	No	Yes* ^{1,2}
2016	No	Yes* ²	No	No	Yes	Yes	No	Yes* ^{1,2}
2015	No	Yes* ²	No	No	No	Yes	Yes* ²	Yes* ^{1,2}
2014	Yes	Yes* ²	Yes	No	No	Yes	Yes	Yes* ^{1,2}
2013	Yes	Yes* ²	Yes	No	Yes	Yes* ⁴	Yes	Yes* ^{1,2}
2012	Yes	Yes* ²	Yes	No	Yes	Yes* ⁴	Yes	Yes* ^{1,2}

*: Data aggregated or uncomplete

¹: Fisheries and species are aggregated all together

²: Some species are aggregated by groups

³: File 2017 contains data for the period January 2016 - December 2017

⁴: File 2012-2013 contains data for the period September 2012- August 2013

Course on fisheries and aquaculture statistics

15. A Comprehensive Training on Fisheries and Aquaculture Statistics, was held in UAE, from 13 to 20 September 2021. The course provided a broad overview of aquaculture and capture fisheries statistics, as well as marketing data, trade and description on how food balance sheets for fish and fish products are calculated. The training involved twelve experts in the various dimensions of fisheries and aquaculture statistics, in addition to the senior officers of the Regional Office for the Near East and North Africa (RNE) and the Subregional Office for the Gulf Cooperation Council States and Yemen (SNG). The event benefitted 95 participants from the United Arab Emirates as well as all the other states in the region.

Appendix 1: RECOFI Recommendation RECOFI/6/2011/1, entitled “Recommendation on minimum data reporting in the RECOFI area (Appendix E <https://www.fao.org/3/i2377b/i2377b00.pdf>)

The Regional Commission for Fisheries (RECOFI),

RECALLING that the purpose of RECOFI is, inter alia, to promote the development, conservation, rational management and best utilization of living marine resources, as well as the sustainable development of aquaculture;

RECALLING that the third meeting of RECOFI’s Working Group on Fisheries Management (WGFM) (Doha, Qatar, 20-22 October 2009) agreed that a recommendation on minimum data reporting in the RECOFI Area should be drafted for review by the fourth meeting of the WGFM (Muscat, Oman, 3-5 October 2010) for submission to the Sixth Session of RECOFI (Manama, Bahrain, 10-12 May 2011);

REAFFIRMING the strong desire of RECOFI Members to promote closer international cooperation and harmonization in fisheries of mutual interest;

AWARE that minimum data reporting requirements for the RECOFI Area are fundamental to promoting long-term sustainable fisheries, especially for species of common interest in the region (see Annex 1);

ADOPTS in conformity with the provision of paragraph 1 (b) and (h) of Article III and Article V of RECOFI Agreement that:

1. (a) Each Member shall take such measures as may be necessary to ensure the collection and submission of information required under the paragraph 2, 3 and 4 of this recommendation.

(b) Nothing in this recommendation shall constrain a Member pursuing data collection and sharing them with the Commission for the purpose of improving management of fisheries and fishery resources in the RECOFI area beyond the requirements of this recommendation.

2. (a) Each Member operating with shrimp trawl fishery shall make available to the Commission the following information with respect to that fishery:

(i) opening and closing dates of the fishery;

(ii) number of vessels engaged in the fishery according to its own vessel type/ size categories (e.g. steel-hulled/speed boats/dhows);

(iii) annual average tow duration, annual average number of tows per day, and total number of days at sea, according to vessel type/size categories;

(iv) live-weight equivalent of annual catch of shrimp, swimming crab, cuttlefish, narrow-barred Spanish mackerel, emperors, groupers, sharks, rays, and other finfishes, taken by the fishery;

(v) annual amount of discards, and

(vi) Species composition of by-catch and discards, if available.

(b) If any by-catch reduction device (BRD) is used or other mitigation measure taken, each Member should advise the Commission of details of such BRD/mitigation measure used and submit the catch and effort for those vessels with mitigation measures separated from those vessels operating normally.

3. Each Member shall make available to the Commission the following information with respect to gillnets, wire-traps, and hooks-and-line fisheries, respectively:

(a) annual effort in individual fisheries, in terms of “number of days at sea”, and if this is not possible, alternative effort with its brief description, and

(b) live-weight equivalents of annual total catch, and of annual catches of narrow-barred Spanish mackerels, emperors, groupers, sharks and rays taken by individual gears with species identification of emperors and groupers to the extent possible, and amount of discards if available.

4. (a) Each Member shall make available to the Commission the following information with respect to narrow-barred Spanish mackerel *Scomberomorus commerson* taken in any fishery in the country:

- (i) catch in live-weight equivalent on a monthly basis to the extent possible, if not on an annual basis;
- (ii) fork length composition of catch on a monthly basis to the extent possible, if not on an annual basis, either based on fishery monitoring or obtained from other sources, and
- (iii) for operations targeting narrow-barred Spanish mackerel (e.g. kingfish fixed net, gillnet and hooks and line), monthly catch with fork length composition and effort by gear type, together with clear description of kinds of effort used, to the extent possible.

(b) Each Member shall make available to the Commission any results obtained through surveys and research works relevant to narrow-barred Spanish mackerel, including fishery-dependent and fishery-independent stock indicators, biological parameters (e.g. growth rate, length frequency data obtained by projects, age-length relationship, reproductive information, natural mortality) and ecological information (e.g. distribution, feeding habitat, habitat preferences).

5. Each Member shall, to the extent practicable, make available to the Commission the following additional information:

- (a) shrimp species composition within the shrimp trawl catch, and
- (b) species composition of discards.

6. Each Member shall submit to the Commission the information required under paragraphs 2, 3, 4 and 5 of this recommendation, and any modification to information reported previously, before the end of August of the following year. Each Member shall cooperate in exchanging historical information relevant to those described in this recommendation.

7. Each Member shall cooperate in sharing survey plans and protocols prior to their implementation, as well as results of such surveys upon their conclusion, to the relevant Members through the Commission.

8. The Commission shall collate, maintain and promptly disseminate to Members the information provided under paragraphs 2, 3, 4 and 5 of this recommendation. The Commission may, subject to the request from a Member who provided information, impose restrictions on access to the information by the public.

9. The Commission shall monitor and evaluate regularly the status of implementation of this recommendation.

Appendix 2: Outcomes of RECOFI workshop on the Minimum Data Reporting Regional Database (13 to 14 July 2021)

As endorsed by RECOFI at its tenth session, it was agreed to hold a workshop on the Minimum Data Reporting Regional Database. This workshop was held virtually from 13 to 14 July 2021 and it aimed to strengthen the statistics and information capacity of the body, including the following activities: (i) Review of the current status of MDR national submissions, including discussion on current indicators and data available for submission (ii) Joint improvement/development of a standardized RECOFI MDR questionnaire and/or MDR data exchange format, to replace the collection forms currently used by Member Countries, and to harmonize with other reporting obligations; (iii) discuss timing of MDR data calls (for example to be aligned with global and regional capture submissions).

The workshop raised opportunities to reflect on a number of queries stemming from the status of MDR submissions from the adoption of the Agreement. Participants were encouraged to share their thoughts on i) the relevance of current MDR indicators in catering to the needs of Member Countries; ii) the need for a review of the MDR Agreement; iii) the ways in which the submitted data could be used; iv) ways to improve reporting capacities of Member Countries; and v) the best ways forward to ensure progress on the development of an operational RECOFI regional database.

Recommendations from the workshop include:

- Recommend that Member States submit all historical Minimum Data Requirement datasets, so to fill any data gaps, including information on when fisheries closures and other relevant management measures were applied.
- Recommend that Member States request support for capacity developments, such as the request by Qatar for a need to improve reporting capacity on SDG 14.4.1.
- Recommend that FAO and RECOFI Secretariat provide clear and accessible definitions of all MDR variables.
- Recommend that the possibility to streamline and harmonize workflow between the GCC Statistical Center in Oman, and RECOFI be further investigated. Options include the export of GCC data to be shared with RECOFI, or the submission by Member States of the same data to both GCC and RECOFI.
- Recommend that relevance of current MDR indicators be reassessed to keep into account changes in management measures, such as the total or seasonal ban in several Member States of shrimp trawling.
- Recommend a reassessment of the current Priority Species list to aid the work done under SDG 14.4.1, and to support a better understanding of regional and national stocks. Also, recommend that Member States consider the need for a species breakdown as opposed to a preference for aggregated species groups.
- Recommend that FAO consider the differences between Gregorian and solar calendars when assessing data submission deadlines.

Appendix 3: Recommendation summary table for RECOFI submissions (extract from the Dataset review report, 2020)

The next table summarizes the main recommendations that can be formulated to improve RECOFI data submissions.

BARHAIN

	Recommendations
General	Use MDR template when possible
Time series	Report the data after 2015
Fishing area	Use the subarea and division code 51.2.0 Gulf Specify local area name if possible
Fishing vessel	Separate vessel type from fishing gear
Fishing gear	Separate fishing gear from vessel type Add FAO code for fishing gear
Opening and closing dates of fishery (Shrimp trawl)	Verify the national regulation for shrimp trawl after 2012 If still authorized, specify the opening and closure date
Fishing effort	For shrimp trawl fishery: <ul style="list-style-type: none"> - Indicate number of days in fishing seasons - Indicate the average tow duration per boat per day - Indicate the average number of tows per boat per day Specify what the terms "Drop data", "Big effort" and "Small effort" correspond to in the tables. Verify whether the total number of boats indicated in the tables is the total number of boats in the fleets (capacity) or the number of active boats during the year for the fishery
Catch	Use actualized scientific name and the ASFIS code when giving the detail species catches Merge rows that correspond to the same scientific name Specify the group according to the MDR requirements to facilitate aggregation or aggregate data according to the MDR groups (Shrimp, swimming crab, cuttlefish, narrow-barred Spanish mackerel, emperors, groupers sharks, rays and other finfishes.
<i>Scomberomorus commerson</i> catch	Specified fishing effort related to total Spanish mackerel catch by gear and by vessel type NBSM catch is reported in the species list by fishing unit and in a separated file from 1986 to 2014 on an annually basis. Recommendation is to have them report

	<p>on a monthly basis.</p> <p>Fork length composition of catch on a monthly (or annual) basis is missing. Precise if there is any initiative to collect those data?</p>
Discards and By-catch	<p>Report discards and by-catch if possible</p> <p>Information about fishing practices could be demanded to identify whether nay Bahrain fleet is making significant discards (larger vessels for instance).</p> <p>It could be also verified if there are by-catch of vulnerable species (turtles, sharks, rays...)</p> <p>Indicate if there is any By-catch Reduction Device (BRD).</p>

IRAN

	Recommendations
General	<p>Use MDR template when possible</p> <p>Use preferentially Excel files</p>
Time series	Report missing data for 2014, 2015, 2016, 2018 and 2019
Fishing area	<p>Specify the subarea and the division code: 51.2.0 for Gulf and 51.3.1 for Sea of Oman</p> <p>Verify if catches are landed in the province or if it is the boat home port or whether name of provinces should be understood as subdivisions of Iran EEZ</p> <p>Report Sea of Oman and Gulf data in the same table specifying subarea and division of the correspondent field</p>
Fishing vessel	NA
Fishing gear	Add FAO code to specify fishing gear accurately
Opening and closing dates of fishery (Shrimp trawl)	Specify the national regulation history for shrimp trawl since 2012
Fishing effort	<p>Specify average tow duration and total number of days at sea for shrimp trawl fishery</p> <p>Confirm shrimp trawl vessel activity when the shrimp season is closed. Are they totally inactive or do they carry out another type of fishery.</p> <p>Precise if the provinces, detailed in the Shrimp tables, are the name of the port where the vessel operates from, or it is assumed that the coastal waters have the same name as the province they border (depending on whether there are subdivisions in the Iran EEZ).</p>
Catch	Specify the ASFIS codes (or at a minimum scientific

	<p>name) when giving the detailed species catches.</p> <p>Specify the family or genera used for the aggregations, considering the need for species breakdown as opposed to a preference for aggregated species groups.</p> <p>Confirm shrimp species composition.</p>
<i>Scomberomorus commerson</i> catch	<p>Reported Narrow-barred Spanish mackerel catch on a monthly basis by fishery.</p> <p>Specify if there is some initiative in progress to collect fork length composition of catch on a monthly (or annual) basis.</p> <p>Report by gear type/by vessel type and by province or subdivision area on an annual basis.</p>
Discards and By-catch	<p>Verify if there are fleets (others than shrimp trawlers) that are producing discards (or if the total catch is landed, as is usually the case for small scale fisheries).</p> <p>Verify if bycatch of vulnerable species (such as turtles, marine mammals) is done by any fishery.</p>

IRAQ

	Recommendations
General	<p>Use MDR template when possible</p> <p>Use preferential Excel files</p>
Time series	Report the data after 2014
Fishing area	<p>Use the subarea and division code 51.2.0 Gulf</p> <p>Specify local area name if possible</p>
Fishing vessel	Indicate the number of active boats in the fleet
Fishing gear	<p>Separate fishing gear from vessel type</p> <p>Add FAO code for fishing gear</p>
Opening and closing dates of fishery (Shrimp trawl)	<p>Specify the national regulation for shrimp trawl after 2014.</p> <p>Include Opening and closing dates of Shrimp trawl fishery directly in the table following the MDR template.</p>
Fishing effort	<p>In the fleet census, separate fishing gear for each vessel type (except if all vessels are multigears).</p> <p>Indicate fishing effort by fishing vessel type and by fishing gear following the MDR template, with the required indicators.</p>
Catch	Use MDR template to submit catch, considering the need for species breakdown as opposed to a preference for aggregated species groups.

	<p>Add ASFIS codes for submissions from 2012 and 2013 (and previous when possible)</p> <p>Link catch to fishing effort for each fishery.</p> <p>Confirm shrimp species composition (if more than one species)</p>
<i>Scomberomorus commerson</i> catch	<p>Verify if there is some Narrow-barred Spanish mackerel catch made by any Iraqi fishery.</p> <p>If so, report data with RECOFI MDR template and implement initiative to collect data on fork length composition.</p>
Discards and By-catch	<p>Verify if there are discards and by-catch of vulnerable species.</p> <p>If so, reported discards and by-catch (amount and species composition).</p> <p>Update information about By-catch Reduction Device (BRD).</p>

KUWAIT

	Recommendations
General	
Time series	Report the data from 2012 to 2018
Fishing area	<p>Use the subarea and division code 51.2.0 Gulf</p> <p>Specify local area name if possible</p>
Fishing vessel	Separate vessel type from fishing gear
Fishing gear	<p>Separate fishing gear from vessel type</p> <p>Separate nets and traps</p> <p>Specify the FAO code for the fishing gear</p>
Opening and closing dates of fishery (Shrimp trawl)	<p>Specify the national regulation history for shrimp trawl between 2012 and 2018</p> <p>Indicate closure season for the missing year (2012 to 2018)</p>
Fishing effort	<p>Create a line in the table per vessel type and per gear (separate vessel and dhow then separate nets and traps)</p> <p>Specify fishing effort indicators:</p> <ul style="list-style-type: none"> - number of days in fishing seasons - average tow duration per boat per day - average number of tows per boat per day - total number of days at sea
Catch	Report catches per vessel type and fishing gear

	<p>Specify the family or genera used for the aggregations, considering the need for species breakdown as opposed to a preference for aggregated species groups</p> <p>Verify total catch per fishery (same amount in each table)</p>
<i>Scomberomorus commerson</i> catch	<p>Report catches per vessel type</p> <p>Specify the related fishing effort</p> <p>Report Narrow-barred Spanish mackerel catch on a monthly basis if possible</p>
Discards and By-catch	<p>Report discards and by-catch if possible</p> <p>If not, present fishing practices to indicate if some fleets are producing significant discards (larger vessels for instance) and if there are by-catch of vulnerable species.</p> <p>Indicate if there are any By-catch Reduction Device (BRD).</p>

OMAN

	Recommendations
General	<p>Use MDR template if possible</p> <p>In addition to data at the finest taxonomic level, producing aggregating data according to MDR template recommended groups, can reduce the risk of mistakes</p>
Time series	Report the data for 2014, 2015, 2018 and 2019
Fishing area	<p>Use Subarea and division codes: 51.2.0 Gulf, 51.3.1 Sea of Oman and 51.3.2 Arabian sea (Southwestern)</p> <p>Specify local area name if possible</p>
Fishing vessel	<p>Separate vessel type from fishing gear</p> <p>Preferentially use terms 'dhow' and 'skiff' to describe vessel type.</p>
Fishing gear	<p>Separate fishing gear from vessel type</p> <p>Add FAO code for fishing gear</p>
Opening and closing dates of fishery (Shrimp trawl)	<p>Specify the national regulation for shrimp trawl since 2012.</p> <p>If still authorized, specify the opening and closure date in MDR template</p> <p>If no longer active in the Gulf, specify when shrimp trawling was prohibited</p> <p>Confirm the history of shrimp trawlers activity</p>
Fishing effort	<p>Indicate the following fishing indicators:</p> <ul style="list-style-type: none"> - number of days in fishing seasons

	<ul style="list-style-type: none"> - average tow duration per boat per day - average number of tows per boat per day <p>Verify the definition of sea_fishing_unit and sea_effort in the submitted database</p> <p>Verify the fishing unit Launch (beach seine)</p>
Catch	<p>Use scientific name and the ASFIS code when giving the details of species catches</p> <p>Specify the group according to the MDR requirement to facilitate aggregation or aggregate data according to the MDR groups</p> <p>Confirm shrimp species composition</p>
<i>Scomberomorus commerson</i> catch	<p>Report Narrow-barred Spanish mackerel using the MDR template</p> <p>Fork length composition of catch on a monthly (or annual) basis is missing. Specify if there are any initiatives to collect this data.</p>
Discards and By-catch	<p>Report discards and by-catch, if possible</p> <p>If not, present fishing practices indicate if some fleets are making significant discards (larger vessels for instance) and if there are by-catch of vulnerable species.</p> <p>Indicate if there are any By-catch Reduction Device (BRD).</p>

QATAR

	Recommendations
General	Use MDR template when possible
Time series	<p>Report missing data:</p> <ul style="list-style-type: none"> - Complete 2012 from January to August - Separate 2016 and 2017 (or verify whether it is a typing mistake in the reported period in the Excel file) - Report 2018 and 2019
Fishing area	<p>Use the subarea and division code 51.2.0 Gulf</p> <p>In addition to detailed data, aggregate the data from the 4 ports in one table, according to MDR template</p>
Fishing vessel	Separate vessel type from fishing gear
Fishing gear	<p>Separate fishing gear from vessel type</p> <p>Add FAO code for fishing gear</p>
Opening and closing dates of fishery (Shrimp trawl)	<p>Specify the national regulation for shrimp trawl after 2012 and its history</p> <p>Specify when shrimp trawling was prohibited</p>

Fishing effort	Aggregated fishing gear according to MDR template
Catch	<p>Specify the group according to the MDR requirements to facilitate aggregation level if possible, considering the need for species breakdown as opposed to a preference for aggregated species groups</p> <p>Present total catch for the country (not only per harbor).</p> <p>Specify ASFIS code or scientific name (in files where missing)</p>
<i>Scomberomorus commerson</i> catch	<p>Indicated related fishing effort for the Spanish mackerel catch</p> <p>Report on a monthly basis</p> <p>Fork length composition of catch on a monthly (or annual) basis is missing. Indicate if there is any initiative to collect the data.</p>
Discards and By-catch	<p>Report discards and by-catch if possible</p> <p>If not, present fishing practices of any fleet which could produce significant discards (larger vessel for instance) and if there is by-catch of vulnerable species.</p> <p>Indicate if there are any By-catch Reduction Device (BRD).</p>

SAUDI ARABIA

	Recommendations
General	Use MDR template when possible
Time series	Report the data after 2015
Fishing area	<p>Use the subarea and division code 51.2.0 Gulf, specifying Northern or Southern area</p> <p>Specify local area name if possible</p> <p>Aggregate the data from all provinces in one table</p>
Fishing vessel	Specify the type of vessel with more accuracy
Fishing gear	<p>Add FAO code for fishing gear</p> <p>Clarify the meaning of the abbreviations</p>
Opening and closing dates of fishery (Shrimp trawl)	<p>Specify the opening and closure date of shrimp trawl season, with the MDR template</p> <p>Specify the national regulation history for shrimp trawl after 2012</p>
Fishing effort	<p>Aggregate the data from the different fishing gear in one table, according to MDR template</p> <p>Add the FOA code for the fishing gear</p>

	<p>Verify the national regulation for shrimp trawl after 2012</p> <p>Verify the unit of "number of fishing efforts"</p>
Catch	<p>Specify scientific name or ASFIS code for more accuracy</p> <p>Specify the group according to the MDR requirements to facilitate aggregation level if possible, considering the need for species breakdown as opposed to a preference for aggregated species groups</p> <p>Verify total catch sum tables and provide final raising data to be used for RECOFI MDR.</p> <p>Verify if there is catch in Sea of Oman (as there is an adjoining coast)</p> <p>Remove shrimp total from the list of species and create a specific row under total catch for more clarity</p>
<i>Scomberomorus commerson</i> catch	<p>Verify catch data for narrow-barred Spanish mackerel</p> <p>Narrow-barred Spanish mackerel catch are reported on an annually basis only. Recommendation is to have them reported on a monthly basis.</p> <p>Fork length composition of catch on a monthly (or annual) basis is missing, indicate whether there are initiatives for the collection of this information.</p>
Discards and By-catch	<p>Report discards and by-catch if possible</p> <p>If not, indicate if any fleets are producing significant discards (larger vessels for instance) and if there is by-catch of vulnerable species.</p> <p>Indicate if there are any By-catch Reduction Devices (BRD) in use.</p>

United Arab Emirates

	Recommendations
General	
Time series	Report the data from 2012 to 2015
Fishing area	Use the subarea and division code 51.2.0 Gulf and 51.3.1 for Sea of Oman
Fishing vessel	Separate the different vessel types
Fishing gear	<p>Separate the different fishing gears to give more detailed data</p> <p>Add FAO code for fishing gear</p>
Opening and closing dates of fishery (Shrimp trawl)	Specify national Shrimp trawl regulation history since 2012, as it seems there is no shrimp trawl reports at least

	<p>since 2016</p> <p>Specify when shrimp trawling was prohibited</p>
Fishing effort	Indicate fishing effort indicators per fishing vessel and per fishing gear
Catch	For each year, detail catch per fishing area, per vessel type and per fishing gear, considering the need for species breakdown as opposed to a preference for aggregated species groups
<i>Scomberomorus commerson</i> catch	<p>Report Narrow-barred Spanish mackerel catch on a monthly basis if possible</p> <p>Specify data per vessel type and per fishing gear</p> <p>Link catch to the corresponding fishing effort</p> <p>Specify fork length composition</p>
Discards and By-catch	<p>Report discards and by-catch if possible</p> <p>If not, specify fishing practices to indicate if some fleets are producing significant discards (larger vessels for instance) and if there is by-catch of vulnerable species.</p> <p>Indicate if there are any By-catch Reduction Device (BRD).</p>