



**REGIONAL COMMISSION
FOR FISHERIES**



**Food and Agriculture
Organization of the
United Nations**

NINTH SESSION

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IMPLEMENTATION STATUS OF RECOFI DECISIONS AND RECOMMENDATIONS

SUMMARY OF PROGRESS MADE THROUGH WGFM-9, WGFM-10 AND WGA-7¹

Background

1. The Commission has two subsidiary bodies, namely the Working Group on Fisheries Management (WGFM) and the Working Group on Aquaculture (WGA). The ninth and tenth meetings of the WGFM were held in Kuwait City, State of Kuwait from 24 to 26 November 2015 (16 delegates) and in Doha, State of Qatar from 6 to 8 December 2016 (11 delegates), respectively. The seventh meeting of RECOFI Working Group on Aquaculture (WGA) was also held in Doha, State of Qatar, from 26 to 28 April 2016.

Current work on priority species

2. During the 9th Meeting of the the WGFM (WGFM-9) Kuwait proposed adding Klunzinger's mullet (*Liza klunzingeri* [Day, 1888],) and greenback mullet (*Liza subviridis* [Valenciennes, 1836]) to the list. The WGFM agreed to submit this proposal to the ninth session of RECOFI for possible endorsement (see Appendix 2 for the current list of priority species).

3. On the 10th Meeting of the Working Group on Fisheries Management (WGFM-10) the importance of including boat and gear type was noted. The challenges in working with fishers and skippers to obtain accurate data was highlighted. Additionally, the value of using Vesel Monitoring System (VMS) and Automatic Identification System (AIS) data was acknowledged, a legal framework and adequate enforcement mechanisms were provided to properly ensure their implementation.

Appraisal of the Kingfish stock

4. The Commission, at its seventh session in May 2013, regarded the implementation of the regional assessment of the Kingfish stock as the first priority to be undertaken by the WGFM during the 2013-2014 intersessional period. The Secretariat proposed that the host country (Sultanate of

¹ Meeting reports on http://www.fao.org/fi/static-Media/MeetingDocuments/RECOFI/RECOFI_2017_9th/default.htm

Oman) could hold the workshop in November 2013. At the time of the meeting, the workshop on the regional joint assessment of kingfish stock was planned in early 2016 in Muscat, Sultanate of Oman.

5. The WGFM-10 meeting agreed that this remained a priority activity, despite the fact that it had not been possible to implement in the previous four years, and that for the last two years it had been the only activity to be implemented by the WGFM. It was also noted that the Cooperation Council for the Arab States of the Gulf (GCC) was also implementing work on this. The meeting agreed that Oman, as the host country, should provide the Secretariat with final dates to hold the workshop, possibly in 2017 or early 2018.

Socio-economics

6. The WGFM-9 noted that information could continue being collected, expanding on what was already available from the survey results to ensure that as much of the socio-economic information available at the national level as possible was shared at the RECOFI level. The meeting acknowledged that the Task Group could play a proactive role in linking ongoing data collection to management objectives.

7. During the WGFM-10 it was agreed that the information collected in the questionnaire provided a good baseline, and accordingly the same questionnaire would be recirculated and completed by RECOFI members with updated data so that some historical data could begin to be compiled. It was agreed that the questionnaire should be translated into Arabic and the bilingual version would be circulated to RECOFI members. The meeting agreed that they would send the updated names of Task Group members to the Secretariat before the ninth session of the Commission.

Minimum data reporting: Capture fisheries (recommendation RECOFI/6/2011/1)

8. **Adequacy of Recommendation RECOFI/6/2011/1:** at WGFM-9, the Secretariat reaffirmed that the data reported under Recommendation RECOFI/6/2011/1 would provide an adequate basis for monitoring the status of fishing operations and resources and facilitating management decisions. Actively utilizing these data would possibly begin with the joint assessment of the kingfish and the development of operational management objectives. However, the lack of identified fisheries management objectives of regional relevance including indicators, reference points and reference limits continues to constitute a significant constraint towards the formulation of regional fisheries management plans such as those for shrimp and kingfish fisheries.

9. **Reporting gaps:** The WGFM-10 took note that only Iraq and Qatar had submitted data for 2016 round, and that with Iraq's first reporting for year 2014, the general situation regarding the capacity of RECOFI members to report catch and effort information as defined in the Recommendation had slightly improved: six members (Bahrain, Iran (Islamic Republic of), Iraq, Oman, Qatar, and Saudi Arabia) had fully proven their capacity for reporting catch and effort as defined in the Recommendation; two members (Kuwait and UAE) had not yet submitted data under the Recommendation. The WGFM emphasized the key role of good communication with and between the focal points when handling calls for minimum data requirements. It was agreed that no further needs were identified in data support (Appendix 2).

10. **Data access and dissemination:** The WGFM-9 agreed that the data component corresponding to Recommendation RECOFI/6/2011/1 would be disseminated to the public, while any additional information, either supplementary or providing new details, would be kept for use within the Commission only.

11. **RECOFI Standards - harmonisation of country data** (e.g. outstanding divergence in terminologies): WGFM-9 agreed that the standard classifications and terminologies indicated in Appendix 11 of the meeting report would be the RECOFI standards under Recommendation RECOFI/6/2011/1. These classifications would provide the basis for a regional database on integrated

catch and effort. During WGFM-10 it was noted that the standard terminologies and classifications for RECOFI could be more detailed when dealing with stock assessment needs, and supplementary categories under these standard classifications could be provided by countries when necessary. However, more advanced classifications should only be considered once the minimum data requirements are being fulfilled.

12. **RECOFI standards - creation of new sub-divisions:** WGFM-10 considered the proposal to split FAO subarea 51.3 into divisions 51.3.1 and 51.3.2, noting this is for decision by the Commission. The meeting highlighted the need for careful attention as to whether this split could require modification to the convention area in the RECOFI Agreement.

Minimum data reporting: Aquaculture (Recommendation RECOFI/8/2015/1)

13. The 7th Meeting of the Working Group on Aquaculture (WGA-7) agreed to adopt the proposed FAO-FIAS roadmap for the execution of RECOFI recommendation on minimum data reporting on aquaculture: the RECOFI Secretariat will modify existing statistics questionnaire to include the data agreed in minimum aquaculture data reporting proposal. Then send to WGA National Focal Points (NFPs) for revision. Then NFPs to test the new questionnaire and feedback to WGA Chairman and technical secretariat. (Action: FAORNE-FIAA-FIAS).

RECOFI Regional data set into RAIS

14. Both WGFM-9 and WGA-7 agreed to move towards one integrated RECOFI Web site for both capture fisheries and aquaculture with a new name to be proposed later. Start with a simple expansion of the existing RAIS web site to create a dedicated capture fisheries section by using currently available functions, and proceed with two experimental exercises in data dissemination and sharing during the joint assessment of kingfish and the preparations for the next WGFM. Formulate proposals to cover the necessary information technology developments and long-term maintenance costs. Kuwait confirmed its commitment to collaborating with FAO during this transition period towards the launch of a new official RECOFI web site.

15. The establishment of the regional database and information centre is a core undertaking for RECOFI and an essential step to strengthen the Commission in supporting fishery management and aquaculture development. At WGFM-10, Kuwait confirmed objectives and outcomes of the Kuwait/FAO cooperation framework based on a project proposal submitted by the Secretariat to the authorities² in Kuwait: the objective is to establish a regional database and information center to strengthen the Commission and support fishery management and aquaculture development in the region. WGFM-10 also acknowledged the interest to use iMarine³ as a potential supporting infrastructure for RAIS and deferred this matter to Kuwait for further consideration and decision.

RECOFI Stocks and Fisheries Inventories in FIRMS

16. The WGFM-10 acknowledged the benefits of developing FIRMS Stocks inventory of regional relevance for the RECOFI region and recommended the initiation of the process focusing on the Spanish mackerel and shrimps as priority species. The WGFM acknowledged the need for a regional focal point for RECOFI-FIRMS stocks and recommended the development of a Terms of Reference for the regional focal point to be proposed for consideration by the WGFM together with the request for regional focal point nominations. It was also highlighted how it was a good time for a new round of updates of the fisheries inventory for the RECOFI area particularly in the context of the Sustainable Development Goals (SDG) indicator 14.4.1: “proportion of fish stocks within biologically sustainable levels”.

² Public Authority for Agriculture Affairs and Fish Resources (PAAFR) in Kuwait

³ www.i-marine.eu/

ITEMS FOR CONSIDERATION BY RECOFI-10 TOWARDS NEXT PHASE
Overall status and outstanding issues: Capture fisheries (Recommendation RECOFI/6/2011/1)

17. **Reporting coverage:** all RECOFI Members except Kuwait and the United Arab Emirates have fully proven their capacity for reporting the catch and effort information as defined in the Recommendation. The nature and causes for discrepancies between the data submitted under the RECOFI/6/2011/1 and the RECOFI Capture Production Regional database should be identified in order to ensure consistency across the two sources of catch statistics.

18. **RECOFI standards - creation of new sub-divisions:** the proposal to split FAO subarea 51.3 into divisions 51.3.1 and 51.3.2 is for decision by the Commission. The meeting highlighted the need for careful attention as to whether this split could require modification to the convention area in the RECOFI Agreement (Appendix 4).

19. **Data access and dissemination:** The Commission should endorse the principle of a step-wise approach with the first step being to disseminate the integrated catch and effort database through the RAIS website as Excel format, and the second step to implement a full-fledged regional database with internet based functionality. Such decision should take into account the status of the establishment of a RECOFI regional data and information centre as reported by the RECOFI Secretariat.

Overall status and outstanding issues: Aquaculture (Recommendation RECOFI/8/2015/1)

20. **Reporting status:** no action has been taken so far to modify existing statistics questionnaire to include the data agreed in minimum aquaculture data reporting proposal.

21. The causes for this lack of action might be found in i) a lack of alignment of the Minimum Data Reporting on Aquaculture with the international statistical standards and reporting obligations to FAO, ii) a lack of regional definitions for some classifications such as System of culture, and iii) some priority levels which could be revised for downgrading. It must also be noted that three RECOFI members Bahrain, Kuwait and the United Arab Emirates do not fulfil anymore their commitment in data reporting to FAO, even though such data questionnaires currently used by FAO could be seen as the “minimum required data collection and reporting” at national and international levels. These aspects are further developed in Appendix 5.

22. In the face of these difficulties, the Commission should therefore consider that it might be premature to expect reporting under Recommendation RECOFI/8/2015/1, and that the first priority should be to ensure through the WGA that all RECOFI Members report to FAO. The next step would be to carefully review and revise the Minimum Data Reporting on Aquaculture adopted by RECOFI in 2016, taking into account the need to address the issues noted above.

Broader perspectives: Opportunities and role of RECOFI in enabling Sustainable Development Goal (SDG) 14.4.1

23. In September 2015, the 193 Member States of the United Nations adopted the 2030 Agenda for Sustainable Development, including 17 Sustainable Development Goals (SDGs) and 169 targets. Goal 14 is to conserve and sustainably use the oceans, seas and marine resources for sustainable development. Target 14.4 states: “By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics”. Progress towards this target will be measured and monitored through the SDG indicators of which 14.4.1 “Proportion of fish stocks within sustainable levels”. A more detailed description of SDGs and the role of FAO can be found in Appendix 6.

24. The Regional Commission for Fisheries (RECOFI)’s mandate is fully relevant to target SDG

14.4. Acknowledging this, it is important to highlight the key role which RECOFI, should play together with FAO (custodian agency for SDG14.4.1) in collecting and analysing statistical information and in contributing to the reporting on SDG14.4.1:

- The RECOFI minimum data requirements support assessment of regional shared stocks such as King mackerel, as well as of assessment units of resources shared at regional level such as shrimp species. Reporting assessment results on the state of regional fishery resources within the RECOFI convention area will enable RECOFI member countries to take informed decisions for sustainable management of fish stocks hence progress towards Target 14.4.
- The RECOFI-FIRMS stocks inventory is a requirement for organizing RECOFI member countries reporting on SDG14.4.1. This inventory can build on RECOFI priority species and as suggested by RECOFI WGFM-10, there would be relevant information to report on state and trend for several resources/stocks in the RECOFI area. The FIRMS minimum data requirements for stocks include information on the identification of single marine resources/stocks (i.e. species name, area(s) of distribution) plus the indicators of Stock State and total catch (or landings). This core information can be further complemented with methodology used for stock assessment, scientific advice and any other biological and ecological insight.
- Complementary to Minimum data requirements under Recommendation RECOFI/6/2011/1, the existing RECOFI-FIRMS fisheries inventories contribute to the understanding of the structure of the exploitation of fishery resources and of the management context. In the absence of specific resource assessments, fisheries inventories also contribute to the understanding of the state of resources by describing profiles and trends of the exploitation of fishery resources and by providing knowledge backbone for management decisions. In this respect and as suggested by WGFM-10, the Committee should encourage the update and extension to all RECOFI members of the fisheries inventory.

25. Importantly, the Commission should also consider developing criteria and/or rules for attributing countries responsibility on the state of fishery resources in the RECOFI convention area, with the aim to enable countries with ownership of their respective SDG14.4.1.

26. As part of its role of custodian agency for SDG indicator 14.4.1, FAO is developing a plan for capacity building of its member countries with the aim to enable them to report on this indicator. RECOFI should consider nominating a regional expert who will be involved in FAO's SDG14.4.1 capacity building activities.

SUGGESTED ACTIONS BY THE COMMISSION

RECOFI priority species

1. Endorse the WGFM-9 proposal to add two species to the priority list (see paragraph 2).

Minimum data requirements: Capture fisheries

2. urge action for countries which have not reported on minimum data requirements;
3. request WGFM to work towards better alignment and consistency between data submitted under RECOFI Recommendation RECOFI/6/2011/1 and data submitted to FAO/ RECOFI Catch regional database;
4. make firm arrangements for a workshop for the regional assessment of the Kingfish stock, as the first priority to be undertaken by the WGFM;
5. decide immediate implementation of the data access policy starting with the dissemination of the harmonized catch and effort regional database through the existing RAIS site; this capacity will be later on strengthened with the establishment of the regional database and information centre;
6. RECOFI standards: review and endorse the newly proposed geographic sub-divisions.

Minimum data requirements: Aquaculture

7. Urge the three countries which have interrupted the provision of aquaculture statistics to FAO to fulfill their commitment, as precondition to further developments under Recommendation RECOFI/8/2015/1;
8. Request WGA to assist with the above decision, and task the WGA to work towards better alignment and consistency between data submitted under RECOFI Recommendation RECOFI/8/2015/1 and aquaculture statistics submitted to FAO.

Role of RECOFI in enabling Sustainable Development Goal (SDG) 14.4.1

9. Nominate a regional expert to be involved in FAO's SDG14.4.1 capacity building activities;
10. Task the WGFM to develop criteria and/or rules for attributing countries responsibility on the state of fishery resources in the RECOFI convention area, while moving on with a pro-active policy for FIRMS reporting on both stocks and fisheries.

Appendix 1

Status of data submission by countries under Recommendation RECOFI/6/2011/1

Updated from RECOFI 8th Commission Session

i) Kingdom of Bahrain

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
Shrimp Trawl												
2-a-i	Opening/closing dates											
2-a-ii		Y	Y	Y	Y	Y*	Y*	Y*	Y*	Y*	Y*	~1990
2-a-iii	Average tow duration by vessel type/ category						Y**	Y**	Y**	Y**	Y**	
	Average number of tows per day by vessel type/ category											
	Total number of days at sea by vessel type/ category											
	Y	Y	Y	Y	Y	Y						
2-a-iv	Catch of shrimp											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	~1990
	Catch of narrow-barred Spanish mackerel											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Catch of other finfishes											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5-a	<i>Shrimp species composition</i>											
2-a-v	Amount of discards											
2-a-vi	Species composition of bycatch and discard											
2-b	BRD related information											
* No separation in type/ category; ** Total tow duration;												
Gillnets												
3-a	Number of days at sea											
	Y	Y	Y	Y	Y	Y						
	Alternative annual efforts											
							Y	Y	Y	Y	Y	
3-b	Total catch											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Catch of narrow-barred Spanish mackerel											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Catch of emperors, groupers, sharks, and rays											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Amount of discards											
5-b	<i>Species composition of discards</i>											
Wire-traps												
3-a	Number of days at sea											
	Y	Y	Y	Y	Y	Y						
	Alternative annual efforts											
							Y	Y	Y	Y	Y	
3-b	Total catch											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Catch of narrow-barred Spanish mackerel											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Catch of emperors, groupers, sharks, and rays											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Amount of discards											
5-b	<i>Species composition of discards</i>											
Hook-and-line												
3-a	Number of days at sea											
	Y	Y	Y	Y	Y	Y						
	Alternative annual efforts											
							Y	Y	Y	Y	Y	
3-b	Total catch											
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

	Catch of narrow-barred Spanish mackerel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Catch of emperors, groupers, sharks, and rays	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Amount of discards										
5-b	<i>Species composition of discards</i>										

Narrow-barred Spanish mackerel

4-a-i	<i>Annual catch</i>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Monthly catch										
4-a-ii	Fork length composition	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
4-a-iii	<i>Catch, effort and fork length composition of targeted gears</i>										
4-b	Relevant information on narrow-barred Spanish mackerel										

* average fork length

ii) Islamic Republic of Iran

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
Shrimp Trawl												
2-a-i	Opening/closing dates		Y	Y	Y	Y						
2-a-ii	Number of vessels by types and size categories		Y	Y	Y	Y						
2-a-iii	Average tow duration by vessel type/ category		Y*	Y*	Y*	Y*						
	Average number of tows per day by vessel type/ category											
	Total number of days at sea by vessel type/ category											
2-a-iv	Catch of shrimp		Y	Y	Y	Y						
	Catch of narrow-barred Spanish mackerel		Y	Y	Y	Y						
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays		Y	Y	Y	Y						
	Catch of other finfishes		Y	Y	Y	Y						
5-a	<i>Shrimp species composition</i>											
2-a-v	Amount of discards		Y	Y	Y	Y						
2-a-vi	Species composition of bycatch and discard											
2-b	BRD related information		Y**	Y**	Y**	Y**						

* Total tow duration reported; ** General configuration

Gillnets												
3-a	Number of days at sea		Y	Y	Y	Y						
	Alternative annual efforts											
3-b	Total catch		Y	Y	Y	Y						
	Catch of narrow-barred Spanish mackerel		Y	Y	Y	Y						
	Catch of emperors, groupers, sharks, and rays		Y	Y	Y	Y						
	Amount of discards											
5-b	<i>Species composition of discards</i>											

Wire-traps												
3-a	Number of days at sea		Y	Y	Y	Y						
	Alternative annual efforts											
3-b	Total catch		Y	Y	Y	Y						
	Catch of narrow-barred Spanish mackerel		Y	Y	Y	Y						
	Catch of emperors, groupers, sharks, and rays		Y	Y	Y	Y						
	Amount of discards											
5-b	<i>Species composition of discards</i>											

Hook-and-line												
3-a	Number of days at sea		Y	Y	Y	Y						
	Alternative annual efforts											
3-b	Total catch		Y	Y	Y	Y						
	Catch of narrow-barred Spanish mackerel		Y	Y	Y	Y						

Catch of emperors, groupers, sharks, and rays	Y	Y	Y	Y
Amount of discards				

5-b *Species composition of discards*

Narrow-barred Spanish mackerel

4-a-i <i>Annual catch</i>	Y	Y	Y	
Monthly catch	Y			

4-a-ii *Fork length composition*

4-a-iii *Catch, effort and fork length composition of targeted gears*

4-b *Relevant information on narrow-barred Spanish mackerel*

iii) Iraq

2015 2014 2013 2012 2011 2010 2009 2008 2007 2006 2005 2004>

Shrimp Trawl

2-a-i	Opening/closing dates	
2-a-ii	Number of vessels by types and size categories	Y
2-a-iii	Average tow duration by vessel type/ category	
	Average number of tows per day by vessel type/ category	
	Total number of days at sea by vessel type/ category	Y
2-a-iv	Catch of shrimp	Y
	Catch of narrow-barred Spanish mackerel	
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays	
	Catch of other finfishes	Y
5-a	<i>Shrimp species composition</i>	
2-a-v	Amount of discards	
2-a-vi	Species composition of bycatch and discard	
2-b	BRD related information	

Gillnets

3-a	Number of days at sea	Y
	Alternative annual efforts	
3-b	Total catch	Y
	Catch of narrow-barred Spanish mackerel	
	Catch of emperors, groupers, sharks, and rays	
	Amount of discards	
5-b	<i>Species composition of discards</i>	

Wire-traps

3-a	Number of days at sea	
	Alternative annual efforts	
3-b	Total catch	
	Catch of narrow-barred Spanish mackerel	
	Catch of emperors, groupers, sharks, and rays	
	Amount of discards	
5-b	<i>Species composition of discards</i>	

Hook-and-line

3-a	Number of days at sea	
	Alternative annual efforts	
3-b	Total catch	
	Catch of narrow-barred Spanish mackerel	
	Catch of emperors, groupers, sharks, and rays	

Amount of discards

5-b *Species composition of discards*

Narrow-barred Spanish mackerel

4-a-i *Annual catch*

Monthly catch

4-a-ii Fork length composition

4-a-iii *Catch, effort and fork length composition of targeted gears*

4-b Relevant information on narrow-barred Spanish mackerel

iv) State of Kuwait

2015 2014 2013 2012 2011 2010 2009 2008 2007 2006 2005 2004>

Shrimp Trawl

2-a-i	Opening/closing dates											
2-a-ii	Number of vessels by types and size categories							Y	Y	Y	~2001	
2-a-iii	Average tow duration by vessel type/ category											
	Average number of tows per day by vessel type/ category											
	Total number of days at sea by vessel type/ category							Y*	Y*	Y*	~2001	
2-a-iv	Catch of shrimp							Y*	Y*	Y*	~2001	
	Catch of narrow-barred Spanish mackerel											
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays											
	Catch of other finfishes											
5-a	<i>Shrimp species composition</i>											
2-a-v	Amount of discards											
2-a-vi	Species composition of bycatch and discard											
2-b	BRD related information											

* No separation in vessel type/ category

Gillnets

3-a	Number of days at sea											
	Alternative annual efforts							Y*	Y*	Y*	~2001	
3-b	Total catch											
	Catch of narrow-barred Spanish mackerel											
	Catch of emperors, groupers, sharks, and rays											
	Amount of discards											
5-b	<i>Species composition of discards</i>											

Wire-traps

3-a	Number of days at sea											
	Alternative annual efforts							Y*	Y*	Y*	Y*	~2001
3-b	Total catch											
	Catch of narrow-barred Spanish mackerel											
	Catch of emperors, groupers, sharks, and rays											
	Amount of discards											
5-b	<i>Species composition of discards</i>											

Hook-and-line

3-a	Number of days at sea											
	Alternative annual efforts											
3-b	Total catch											
	Catch of narrow-barred Spanish mackerel											
	Catch of emperors, groupers, sharks, and rays											

Amount of discards

5-b *Species composition of discards*

Narrow-barred Spanish mackerel

4-a-i *Annual catch*

Monthly catch

4-a-ii Fork length composition

4-a-iii *Catch, effort and fork length composition of targeted gears*

4-b Relevant information on narrow-barred Spanish mackerel

v) Sultanate of Oman

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
Shrimp Trawl												
2-a-i	Opening/closing dates		Y*	Y*	Y*							
2-a-ii	Number of vessels by types and size categories		Y	Y	Y							
2-a-iii	Average tow duration by vessel type/ category											
	Average number of tows per day by vessel type/ category											
	Total number of days at sea by vessel type/ category		Y	Y	Y							
2-a-iv	Catch of shrimp		Y	Y	Y							
	Catch of narrow-barred Spanish mackerel											
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays		Y**	Y**	Y**							
	Catch of other finfishes		Y**	Y**	Y**							
5-a	<i>Shrimp species composition</i>											
2-a-v	Amount of discards											
2-a-vi	Species composition of bycatch and discard											
2-b	BRD related information											

* No date available; ** partially

Gillnets												
3-a	Number of days at sea		Y	Y	Y	Y	Y					~1984
	Alternative annual efforts											
3-b	Total catch		Y	Y	Y	Y	Y					~1984
	Catch of narrow-barred Spanish mackerel		Y	Y	Y	Y	Y					~1984
	Catch of emperors, groupers, sharks, and rays		Y	Y	Y	Y	Y					~1984
	Amount of discards											
5-b	<i>Species composition of discards</i>											

Wire-traps												
3-a	Number of days at sea		Y	Y	Y	Y	Y					~1984
	Alternative annual efforts											
3-b	Total catch		Y	Y	Y	Y	Y					~1984
	Catch of narrow-barred Spanish mackerel		Y	Y	Y	Y	Y					~1984
	Catch of emperors, groupers, sharks, and rays		Y	Y	Y	Y	Y					~1984
	Amount of discards											
5-b	<i>Species composition of discards</i>											

Hook-and-line												
3-a	Number of days at sea		Y	Y	Y	Y	Y					~1984
	Alternative annual efforts											
3-b	Total catch		Y	Y	Y	Y	Y					~1984
	Catch of narrow-barred Spanish mackerel		Y	Y	Y	Y	Y					~1984
	Catch of emperors, groupers, sharks, and rays		Y	Y	Y	Y	Y					~1984
	Amount of discards											

5-b *Species composition of discards*

Narrow-barred Spanish mackerel

4-a-i	<i>Annual catch</i>	Y	Y	Y
	Monthly catch	Y	Y	Y
4-a-ii	Fork length composition			
4-a-iii	<i>Catch, effort and fork length composition of targeted gears</i>			
4-b	Relevant information on narrow-barred Spanish mackerel			

vi) State of Qatar

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
Gillnets	**	**	**	**								
3-a Number of days at sea	Y	Y	Y	Y	Y*	Y*	Y*					
Alternative annual efforts	Y	Y	Y	Y	Y*	Y*	Y*					
3-b Total catch	Y	Y	Y	Y	Y*	Y*	Y*					
Catch of narrow-barred Spanish mackerel	Y	Y	Y	Y	Y*	Y*	Y*					
Catch of emperors, groupers, sharks, and rays	Y	Y	Y	Y	Y*	Y*	Y*					
Amount of discards												
5-b <i>Species composition of discards</i>												

* Sample at Khor and Shumal
 ** separated kingfish targeted for Dhow, gillnet for others combined with handline, all gears combined for Skiffs

Wire-traps	***	***	***									
3-a Number of days at sea	Y	Y	Y	Y	Y*	Y*	Y*					
Alternative annual efforts	Y	Y	Y	Y	Y*	Y*	Y*					
3-b Total catch	Y	Y	Y	Y	Y*	Y*	Y*					
Catch of narrow-barred Spanish mackerel	Y	Y	Y	Y	Y*	Y*	Y*					
Catch of emperors, groupers, sharks, and rays	Y	Y	Y	Y	Y*	Y*	Y*					
Amount of discards												
5-b <i>Species composition of discards</i>												

* Sample at Khor and Shumal
 *** combined with all gears for skiffs

Hook-and-line												
3-a Number of days at sea	Y	Y	Y	Y								
Alternative annual efforts	Y	Y	Y	Y								
3-b Total catch	Y	Y	Y	Y								
Catch of narrow-barred Spanish mackerel	Y	Y	Y	Y								
Catch of emperors, groupers, sharks, and rays	Y	Y	Y	Y								
Amount of discards												
5-b <i>Species composition of discards</i>												

Dhows - combined with gillnet; Skiffs - all gears combined

Narrow-barred Spanish mackerel												
4-a-i Annual catch	Y	Y										
Monthly catch												
4-a-ii Fork length composition												
4-a-iii <i>Catch, effort and fork length composition of targeted gears</i>												
4-b Relevant information on narrow-barred Spanish mackerel												

Data for 2012 cover the period from September to December 2012.

vii) Kingdom of Saudi Arabia

		2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
Shrimp Trawl													
2-a-i	Opening/closing dates			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
2-a-ii	Number of vessels by types and size categories			Y	Y	Y	Y*	Y*	Y*	Y*	Y*	Y*	~1991
2-a-iii	Average tow duration by vessel type/ category												
	Average number of tows per day by vessel type/ category			Y	Y	Y	Y**	Y**	Y**	Y**	Y**	Y**	~1991
	Total number of days at sea by vessel type/ category			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
2-a-iv	Catch of shrimp			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
	Catch of narrow-barred Spanish mackerel			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
	Catch of other finfishes			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
5-a	<i>Shrimp species composition</i>			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
2-a-v	Amount of discards												
2-a-vi	Species composition of bycatch and discard												
2-b	BRD related information												
Gillnets													
3-a	Number of days at sea			Y	Y	Y	Y	Y	Y	Y			
	Alternative annual efforts			Y	Y	Y	Y	Y					
3-b	Total catch			Y	Y	Y	Y	Y	Y	Y			
	Catch of narrow-barred Spanish mackerel			Y	Y	Y	Y	Y	Y	Y			
	Catch of emperors, groupers, sharks, and rays			Y	Y	Y	Y	Y	Y*	Y*			
	Amount of discards												
5-b	<i>Species composition of discards</i>												
Wire-traps													
3-a	Number of days at sea			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
	Alternative annual efforts			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
3-b	Total catch			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
	Catch of narrow-barred Spanish mackerel			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
	Catch of emperors, groupers, sharks, and rays			Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
	Amount of discards												
5-b	<i>Species composition of discards</i>												
Hook-and-line													
3-a	Number of days at sea			Y	Y	Y	Y	Y	Y	Y			
	Alternative annual efforts			Y	Y	Y	Y	Y					
3-b	Total catch			Y	Y	Y	Y	Y	Y	Y			
	Catch of narrow-barred Spanish mackerel			Y	Y	Y	Y	Y	Y	Y			
	Catch of emperors, groupers, sharks, and rays			Y	Y	Y	Y	Y	Y*	Y*			

Amount of discards

5-b *Species composition of discards*

Narrow-barred Spanish mackerel

4-a-i	<i>Annual catch</i>	Y	Y	Y	Y
	Monthly catch	Y	Y	Y	Y
4-a-ii	Fork length composition				
4-a-iii	<i>Catch, effort and fork length composition of targeted gears</i>				
4-b	Relevant information on narrow-barred Spanish mackerel				

Appendix 2

Summary of data submitted under Recommendation RECOFI/6/2011/1

Updated from RECOFI-WGFM-10 with taking into account Iraq's submission

The 2012 and 2013 catch and effort data disaggregated by fishing gears and vessel categories was submitted by Bahrain, Iran, Oman, Qatar and Saudi Arabia. During this round of submissions, Iraq provided fleet and operational information that was utilised to estimate efforts for 2004-2013, while catch data was aggregated for all vessel classes and gears. Only Bahrain and Qatar had submitted their 2014 catch and effort data in the 2015 round. Iraq submitted 2014 data (first and only year reported) during the 2016 round of data submission. For Iraq this was the first submission using the Excel format. Only Iraq and Qatar have submitted data in 2016.

A review of the coverage in catch amount data is suggested to further clarify data gaps within country submissions. In addition, a row 'Other' was added in below tables 'Catch composition by fleet segments' and 'Catch composition by fishing gear' to balance the total catch composition reported for each country.

	Bahrain	Iraq	Iran	Oman	Qatar	Saudi Arabia
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Coverage in catch amount [Min Data reporting]/[RECOFI Capture production DB]

Total catch	100%	38%	54%	99%	132%	92%
Shrimp	100%	100%	89%	97%	n.a.	85%
Kingfishes	100%	-	93%	105%	126%	67%
Groupers	100%	-	82%	84%	121%	119%
Emperors	100%	-	76%	327%	366%	122%

Catch composition reported by fleet segments

Steel boat		90%	0.05%			
Dhow	35%	10%	41%	10%	82%	65%
Speedboat	62%		34%	83%	18%	35%
Others	3%		24.95%	7%		
TOTAL	100%	100%	100%	100%	100%	100%

Catch composition reported by gears

Shrimp trawl	29%	17%	6%	0%		27%
Gillnet	14%	83%	62%	46%	22%	22%
Wire trap	40%		3%	6%	59%	36%

Hook-and-Line	4%		4%	24%		15%
Others	13%			23%	19%	
TOTAL	100%	100%	75%	99%	100%	100%

Species breakdown: Number of species reported (catch report at species level)

Groupers	2 (19%)*	0%	0%	4 (100%)	4 (100%)	10 (86%)
Emperors	4(100%)	0%	0%	4 (32%)	3 (100 %)	4 (78%)

Kingfishes, Groupers, and Emperors were defined as *Scomberomorus* spp., *Epinephelus* spp., and *Lethrinus* spp., respectively.

* Bahrain informed that 98% of catch reported under *Epinephelus* spp. is Orange-spotted grouper (*Epinephelus coioides*).

Appendix 3

List of priority species supporting main reference fisheries in the RECOFI Area

(as revised by RECOFI VIII)

FAO name	ASFIS code	Common name	Scientific name
Green Tiger Prawn	TIP	Green Tiger Prawn	<i>Penaeus semisulcatus</i>
Blue swimming crabs	SCD	Blue swimming crab	<i>Portunus pelagicus</i>
Pharaoh cuttlefish	IAH	Cuttlefish	<i>Sepia pharaonis</i>
Stolephorus anchovies	STO	Anchovies	<i>Stolephorus spp.</i>
Indian oil sardine	IOS	Indian oil sardine	<i>Sardinella longiceps</i>
Bludger	NGY	Jacks	<i>Carangoide gymnostethus</i>
Golden trevally	GLT	Golden trevally	<i>Gnathanodon speciosus</i>
Indian mackerel	RAG	Indian mackerel	<i>Rastrelliger Kanagurta</i>
Snubnose emperor	LBW	Orange finned emperor	<i>Lethrinus borbonicus</i>
Pink ear emperor	LTS	Redspot emperor	<i>Lethrinus lentjan</i>
Spangled emperor	LHN	Spangled emperor	<i>Lethrinus nebulosus</i>
Coral hind	CFI	Coral grouper/Bluespotted grouper	<i>Cephalopholis miniata</i>
Orange-spotted grouper	ENI	Orange-spotted grouper	<i>Epinephelus coioides</i>
White-spotted spinefoot	SCN	Rabbitfish	<i>Siganus canaliculatus</i>
Narrow-barred Spanish mackerel	COM	King mackerel/Narrow-barred Spanish mackerel	<i>Scomberomorus commerson</i>
Longtail tuna	LOT	Longtail tuna	<i>Thunnus tonggol</i>
Kawakawa	KAW	Kawakawa	<i>Euthynnus affinis</i>
Requiem sharks nei	RSK	Sharks	<i>Carcharhinidae</i>

The current work on RECOFI Priority Species is available in Appendix 5 of the Tenth Meeting of RECOFI Working Group on Fisheries Management (Doha, the State of Qatar, 6-8 December 2016); <http://www.fao.org/3/a-i6948e.pdf>

RECOFI Standards: Proposed creation of new geographical divisions

Historical record regarding “Request from RECOFI Secretariat to CWP for formal endorsement of proposed splitting of FAO subarea 51.3 into divisions 51.3.1 and 51.3.2”

At WGFM-6 (Doha, 2012), the Annex 3 of meeting document RECOFI:WGFM6/2012/8 (FIRMS) read as follows:

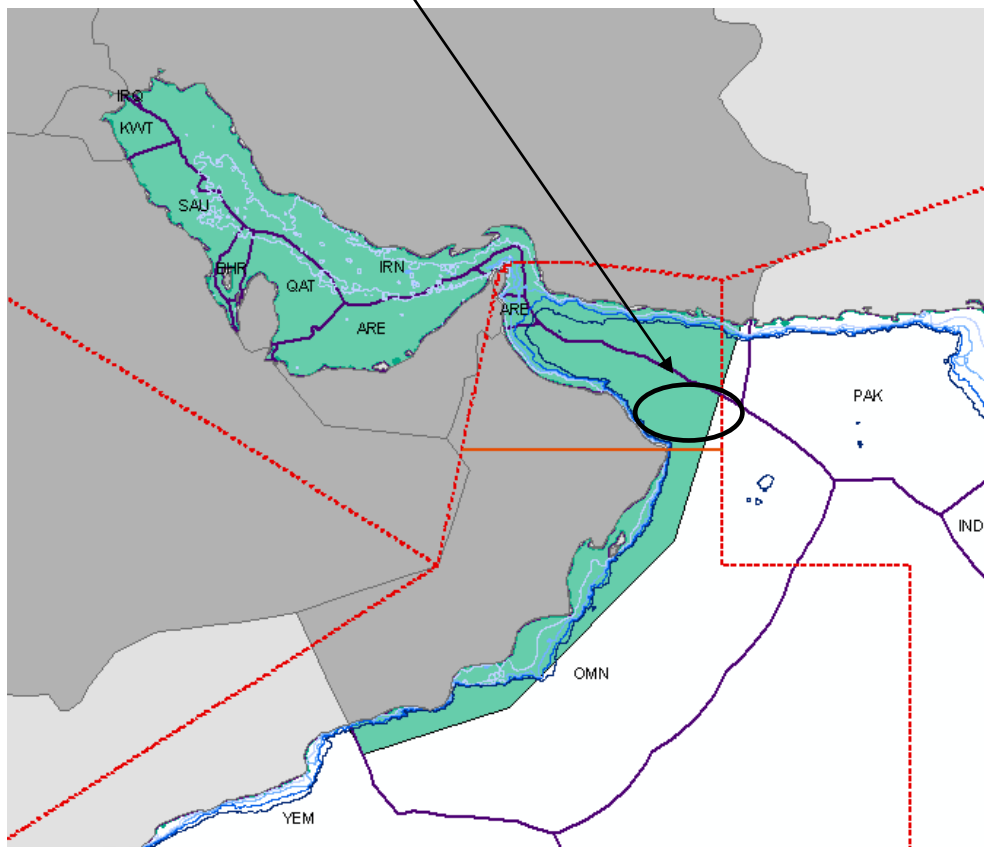
<< In order to properly geo-reference marine resources and fisheries in the RECOFI area, and in particular for distinguishing the fisheries operating in the Oman Sea, and those operating in the south Western part of the Arabian Sea, RECOFI fifth WGFM (Tehran, Iran (Islamic Republic of) 9-12 October 2011) agreed that FAO statistical subarea 51.3 “Western Arabian Sea” should be divided into two divisions:

- 51.3.1: Oman Sea, and
- 51.3.2: Arabian Sea (South Western).

WGFM-6 validated the specification of the limit between the two new divisions. The dividing line is set as follows (See figure 1):

“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”

Figure 1: proposed boundary between new divisions 51.3.1 and 61.3.2



The WGFM-6 (November 2012) reviewed the matter with the following report:

Review of the proposed statistical boundary between new candidate divisions 51.3.1 (Oman Sea) and 51.3.2 (Arabian Sea (South Western)) – the WGFM6 acknowledged that this proposal was made in close consultation between Iran (Islamic Republic of) and Oman to address the FIRMS requirement to distinctly geo-reference fisheries taking place in the Oman Sea and in the Arabian sea. The Coordinating Working Party on Fisheries Statistics (CWP) Secretary advised RECOFI delegates that RECOFI has the capacity to make such modifications, and that the proposed statistical boundary should also allow for consistent reporting of fishery statistics according to newly created divisions. The proposed names have also to be carefully reviewed before endorsement. The WGFM advised that Iran (Islamic Republic of) and Oman will consult each other on this matter and confirm to RECOFI. The WGFM6 proposed that the formal decision would then have to be made by the Commission at its next meeting.

The Commission-7 (May 2013) meeting reviewed the matter with the following report:

Regarding the proposed subdivision of subarea 51.3, the Commission considered it necessary to further consult with and assess the commitment of all countries that would be affected by this modification, including non-RECOFI Member countries, and agreed to defer the decision. The Commission advised the WGFM to continue the discussion and 8 consultations, particularly with neighbouring countries and relevant organizations, and table the final proposal at eighth session of RECOFI.

No subsequent action was taken until WGFM-10 (Dec. 2016)

Overall status and outstanding issues: Aquaculture (Recommendation RECOFI/8/2015/1)

1. As a matter of principle as stated in the FAO membership agreement, the competent authorities of all member states, including those in the RECOFI region, need to respond to FAO's annually dispatched statistical data questionnaires by reporting their respective national fisheries and aquaculture data to the FAO Fisheries and Aquaculture Department.

2. FAO Fisheries and Aquaculture Department appreciates and expect the continuation of efforts of Islamic Republic of Iran, Iraq, Oman, Qatar and the Kingdom of Saudi Arabia in fulfilling their respective commitment in data reporting to FAO. Meanwhile, FAO calls on the competent authorities of Bahrain, Kuwait and the United Arab Emirates to resume their reporting of national data on both capture fisheries and aquaculture, which has been discontinued or disrupted in the recent past (Table 1).

3. With regard to aquaculture, the coverage of the data questionnaires currently used by FAO could be seen as the "minimum required data collection and reporting" at national and international levels. FAO aquaculture data questionnaires cover (1) the off-farm production quantity and first-sale price in national currency by farmed species by culture environment by farming system/method; (2) the production of seeds from aquaculture hatcheries and nurseries by species by intended use; and (3) the water surface areas and units of main types of production facilities.

4. The Minimum Data Reporting on Aquaculture adopted by RECOFI in 2016 need to be reviewed and revised carefully, and to be translated in a practical set of data questionnaires for implementation according to the priority and practicality, taking into consideration also the existing FAO data questionnaires to avoid duplications and to align with the established international statistical standards.

5. Of the three categories of RECOFI adopted Minimum Data Reporting on Aquaculture, the most of data to be collected and reported under the category **PRODUCTION STATISTICS** are already covered by FAO questionnaires, with the exception of System of culture and Capture-based aquaculture input. Here are FIAS's opinions about these two exceptions.

- The System of culture, with further description (extensive, semi-intensive, intensive), refers to the intensity of aquaculture farming system according to the materials and managerial input levels and the degree of sophistication of technologies including the equipment and facilities. Worldwide for aquaculture statistics purpose, the intensity level is rarely measured and there is no existing widely agreed international standard definition. Unless RECOFI countries agree to define and agree on the intensity of aquaculture farming systems used in the RECOFI region, this should be treated as low priority area for data collection.
- To avoid confusion and complicating things, capture-based aquaculture input should be simply defined as wild seeds.

6. The data to be collected under the category of **PRODUCTION CENTRES** are partially covered by FAO questionnaires already. These data are usually collected less often through census. For international comparison, the term "aquaculture production holdings" needs to be introduced and defined, in addition to the foreseeable work required to define some of the measurements for data collection and to translate them into workable data questionnaires to be used.

7. The data recommended by **RECOFI** for national collection and reporting under the category of **MARKET** appear to be beyond the aquaculture sector. Inter-departmental joint efforts are required to obtain statistical data such as feed production (industry and/or commerce) and international trade (commerce and custom). For trade data, it is usually difficult or even impossible to differentiate between capture and aquaculture if the traded products originate from both production sources.

Therefore, lower priority should be given to data collection under MARKET category.

8. The WGA should examine the issues listed above and revise accordingly the Minimum data reporting on Aquaculture.

Table 1: FAO Global Aquaculture production database - quantity in RECOFI region by country (2000-2015)

Unit: Tonnes in live weight																
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Iran (Islamic Rep. of)	40550	62550	76817	91714	104330	111761	129468	158549	154726	179552	220034	247262	296514	325325	320174	346118
Saudi Arabia	6004	8218	6744	11824	11172	14375	15586	18410	22340	26442	26374	16076	12737	9266	23880	30000
Iraq	1745	2000	2000	2000	13947	17941	14867	15810	19246	18732	20320	16290	25040	14060	26625	24803
United Arab Emirates	0	0	0	2300	570	590	610	644	1343	130	198	415	420	780	788	790
Kuwait	376	195	195	366	375	327	568	348	291	272	310	319	309	303	297	262
Oman	0	0	0	352	515	218	114	96	121	118	127	157	168	353	282	170
Qatar	0	1	0	0	0	11	36	36	36	36	36	36	36	56	56	10
Bahrain	12	0	3	4	8	3	2	1	2	2	3	3	2	0	6	6
TOTAL	48687	72964	85759	108560	130917	145226	161251	193894	198105	225284	267402	280558	335226	350143	372108	402159

* Red figures indicate "FAO estimates" in the absence of national data report

Background on the SDG Framework

1. In September 2015, the 193 Member States of the United Nations adopted the 2030 Agenda for Sustainable Development – including 17 Sustainable Development Goals (SDGs) and 169 targets. The Agenda commits the international community to end poverty and hunger and achieve sustainable development in all three dimensions (social, economic and environmental) over the next 15 years (2016-2030). The SDGs are the first Member State-led global development push in history, laying out specific objectives for countries to meet by a given timeframe with achievements monitored periodically to measure progress.

2. SDG14 ‘Life below water’ is dedicated to humanity’s interactions with the oceans. Goal 14 is to conserve and sustainably use the oceans, seas and marine resources for sustainable development. It covers a range of issues in the area of conservation and sustainable use, with seven targets and three means of implementation to respond to the urgent need for transformative change toward more sustainable practices. The fourth target “fisheries management and value” (SDG 14.4) states: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

3. Under each target, selected indicators have been set in order to monitor the progress towards implementation of the Goals. According to the principle of national ownership, countries are chiefly responsible for gathering data. However, international agencies can lend assistance by strengthening national capacities and ensuring that data are comparable and aggregated at sub-regional, regional and global levels. FAO is recognized as having a fundamental global role in developing methods and standards for food and agriculture statistics, and in providing technical assistance that can help countries meet the new monitoring challenges. FAO has been proposed as custodian⁴ of 21 SDG indicators central to food and agriculture, i.e. act as facilitator to assist countries with their reporting and to foster strong and coherent institutional and policy environments.

4. As part of its role of custodian agency for SDG indicator 14.4.1 “Proportion of fish stocks within sustainable levels”, FAO is developing a plan for capacity building of its member countries with the aim to enable them to report on this indicator. Currently FAO regularly reports as part of its biennial SOFIA publication the state of fish stocks at global level. This global level indicator needs to be adapted in order to become an indicator compliant with UNSD guidelines, i.e. owned and reported by countries. Such adaptation has to build on established international laws and agreements, including the 1982 UN Convention on the Law of the Sea, National responsibility over fishery resources within EEZs, and arrangements agreed upon within Regional fishery management organizations and arrangements.

5. FAO’s general capacity building plan includes the identification of a selected set of stock assessment methods applicable in Data Limited situations (DLM), the convening of a global expert workshop where these methods will be peer reviewed for endorsement by regional experts, and where these experts will be trained as trainers, and the use of the Fishery and Resources Monitoring System (FIRMS) as instrument to facilitate the collation of national SDG14.4.1 indicator.

⁴ See <http://www.fao.org/3/a-i6919e.pdf> for more about the role of FAO as custodian agency