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REGIONAL COMMISSION FOR FISHERIES

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IMPLEMENTATION STATUS OF RECOFI RECOMMENDATIONS

Executive summary

The aim of this document is to report the implementation status of the two RECOFI Recommendations related to data collection and submission for capture fisheries and aquaculture (Recommendation RECOFI/6/2011/1 on Minimum Data Reporting in the RECOFI Area; Recommendation RECOFI/8/2015/1 Minimum Reporting on Aquaculture Data and Information); to review progress on related status and trends monitoring topics such as Fisheries Resources and Monitoring System (FIRMS), or global Sustainable Development Goals (SDG) 14; and to formulate recommendations on these matters for consideration by the Commission.

Suggested Action by the Commission

The Commission is invited to:

- Note this report and provide further guidance on how to improve the reporting and monitoring of aquaculture and capture fisheries in the RECOFI area

SUMMARY OF PROGRESS MADE THROUGH WGFM-11 AND WGA-8[1]

Background

1. The Commission currently has two binding Recommendations, both of which are related to data collection and submission: i) Recommendation RECOFI/6/2011/1 on Minimum Data Reporting in the RECOFI Area; and ii) Recommendation RECOFI/8/2015/1 Minimum Reporting on Aquaculture Data and Information.

[1] Meeting reports on WGA-8: http://www.fao.org/fishery/nems/41055/en and WGFM-11: http://www.fao.org/fishery/nems/41101/en

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

2. The implementation status of the Recommendation RECOFI/6/2011/1 was reviewed at the eighth meeting of the RECOFI Working Group on Aquaculture (WGA-8), which was held in Kuwait City, State of Kuwait, from 17 to 19 April 2018. At the meeting, the WGA was informed by FAO Fisheries and Aquaculture Department (FI) on the need for member states to prioritize the national data collection and reporting on production statistics before moving towards the collection of data on production centres and markets. It was noted that there was no objection from the Commission to the recommendation by FAO FI to RECOFI Members to focus first on basic production statistics, which are essential top priority data. Except for production data by intensity of farming system, currently not commonly collected due to the lack of internationally established standard definition for intensity, the scope of aquaculture data recommended for collection and reporting by RECOFI generally matches with the aquaculture data collection questionnaires in current use by FAO FI at global level.

3. On the other hand, WGA-8 noted that, the current FAO FI questionnaires are capturing the most essential aquaculture statistics. The WGA-8 also noted that in order to utilize the standard ASFIS List of species for fishery statistics purposes for national data collection and reporting, regularly used by FAO FI, the relatively low percentage of aquatic species with standard Arabic names needs to be addressed appropriately.

4. WGA-8 recommended that, starting from the reference year 2017, the responsible authorities of RECOFI members had to report their respective national aquaculture data concurrently to both the RAIS Regional Aquaculture Information System and FAO FI. No Member State was able to submit 2017 reference year data to the RECOFI Secretariat before the agreed deadline (e.g. 1 June 2018) for data registration in the RAIS system. However, with the exception of Bahrain and Iran (Islamic Republic of), data for the reference year 2017 for all other members have been registered in RAIS system as of June 2019.

5. Submission of national aquaculture data for 2017 reference year to FAO FI were received during 2018 only from Iran (Islamic Republic of) (24 October), Iraq (31 July), Oman (15 November) and Qatar (27 August). Appendix 1 presents (1) a summary of the status of 2017 reference year national data reporting to FAO by RECOFI Member States; (2) RECOFI member aquaculture data registered in FAO global databases in comparison with registered capture data, and (3) the list of 44 aquaculture species farmed in the RECOFI region with production data registered as "species items" by FAO according to the ASFIS List. The Appendix 2 gives the details of the national aquaculture production quantity and unit prices from the RECOFI Member States for the most recent years.

6. Comparing the 2017 reference year aquaculture data in RAIS system and the data in FAO FI global database, it can be noted that discrepancies exist at species and total level, with the extent ranging from minor (United Arab Emirates) to significant (Iraq). This further reflects the needs for RECOFI members to adopt regionally harmonized statistical standards and to align with FAO's global statistical standards in aquaculture data collection, reporting and dissemination. A training workshop on aquaculture statistics, recommended and planned in the work programme by WGA-8, is expected to address these particular issues in addition to the overall goal of a regional capacity building in aquaculture statistics.

Socio-economics

7. The Ninth Meeting of the Working Group on Fisheries Management (WGFM-9) held in Kuwait on 24-26 November 2015 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.

8. During the Tenth Meeting of WGFM (WGFM-10) it was agreed that the information collected in the socio-economic 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.

9. No work has been done on socio-economics during this intersessional period.

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

10. **Adequacy of Recommendation RECOFI/6/2011/1**: the Eleventh Meeting of WGFM (WGFM-11) in 2019 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 deficiency of data submission and required reporting constitute a significant constraint towards the development of a regional database with harmonized and integrated data for the effective formulation of regional fisheries management plans. A summary of the data submission including some quality indicators is provided in Appendix 3.

11. **Reporting gaps**: The WGFM-11 took note that regarding 2018 round of data submission only Iran, Oman and Qatar submitted their data for 2017, and took note that Bahrain, Iran (Islamic Republic of), Iraq, Oman, Qatar, and Saudi Arabia have previously submitted data under the Recommendation to the Secretariat. WGFM-11 encouraged Kuwait and United Arab Emirates to submit their data. See the status of country submissions in Appendix 4.

12. **Focal points**: WGFM-11 emphasized the key role of good communication with and between the focal points when handling calls for minimum data requirements and decided that the MDR National Focal Points can be the same ones as FIRMS National Focal points.

13. **Enhancing the data submission:** RECOFI Secretariat proposes the organization of a MDR workshop in 2020 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).

14. **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.

15. **RECOFI standards - creation of new sub-divisions**: The WGFM has been requesting, since its fifth meeting (2011), 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) (see Appendix 5), 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 Regional database into RAIS

16. 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. WGFM-11 reiterated its interest to establish a regional database and information centre to strengthen the Commission and support fishery management in the region through RAIS. In 2019, the RECOFI Secretariat prepared a new proposal, designed in a modular and incremental way to cater for diverse possibilities on activities and budget, with the main goal to ensure progress on the development of the regional database. This proposal builds on the concrete opportunity of the availability at FAO Secretariat level of a functional pilot infrastructure for the Regional Database. This new proposal was made available to Kuwait, which confirmed its commitment and indicated that steps are being taken from their side to move forward.

17. As part of the above-proposed MDR workshop, the RECOFI Secretariat proposes to include the evaluation of the functional pilot of a regional database proposed by the FAO Secretariat.

RECOFI Stocks and Fisheries Inventories in FIRMS

18. **Fisheries inventories**. Complementary to MDR 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.

19. **Stocks inventories**. The WGFM-11 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. 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”.

20. **Focal points.** The WGFM decided that the FIRMS National Focal points can be the same ones that the MDR National Focal Points list. The Terms of Reference for the FIRMS Regional Focal Point were approved. Until a final decision is made by the Commission, the WGFM expressed its desire to nominate the RECOFI Chair as the FIRMS Regional Focal Point.

21. **Fostering dissemination of RECOFI fisheries and stocks status**. The RECOFI Secretariat proposes a hands-on capacity building workshop on FIRMS to (i) update RECOFI-FIRMS national inventories on fisheries, and (ii) develop RECOFI inventory on Marine resources. Such workshop could be associated with the above proposed MDR workshop, or part of a capacity building workshop on SDG14.4.1 if any, or a standalone workshop.

Broader perspectives: Opportunities and role of RECOFI in enabling SDG 14

22. 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.

23. 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.

24. As part of its role of custodian agency for SDG indicator 14.4.1, FAO is developing an e-training course aimed at building capacities of its member countries and 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.

25. Importantly and considering the guidelines conveyed through this e-training course, the Commission is also encouraged to be actively involved in a regional review of the reference list of stocks which its member countries would use to calculate indicator 14.4.1 should they decide to report. In this regard, it should be noted:

- That regional shared stocks such as King mackerel, as well as of assessment units of resources shared at regional level such as shrimp species, can be listed by countries in their reference list of stocks. The RECOFI MDR support assessment of these stocks and 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 can provide a foundation, which RECOFI member countries might consider and build from when developing their reference list of stocks for reporting on SDG14.4.1. This inventory can build on RECOFI priority species and as suggested by WGFM-10, there would be relevant information to report on state and trend for several resources/stocks in the RECOFI area.

SUGGESTED ACTIONS BY THE COMMISSION

Minimum data requirements: Aquaculture

26. Urge the non-reporting government to resume the regular provision of national aquaculture statistics to FAO to fulfill their commitment as FAO member states, as precondition to further developments under Recommendation RECOFI/8/2015/1;

27. Request WGA to assist with the above decision, and task the WGA to work towards better alignment and consistency between data submitted to RAIS system under RECOFI Recommendation RECOFI/8/2015/1 and annual aquaculture statistics reporting to FAO.

Minimum data requirements and Regional database: Capture fisheries

28. Approve the RECOFI Secretariat proposal to organize a MDR-Regional Database Meeting in 2020, as first step of the Secretariat's new proposal to ensure progress on the development of the regional database;

29. Urge action for countries, which have not reported on MDR;

30. Urge countries to update the RECOFI-MDR/FIRMS National Focal Points list;

31. RECOFI standards: endorse 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 Stocks and Fisheries Inventories in FIRMS

32. Approve the RECOFI Secretariat proposal to organize a FIRMS workshop in 2020, standalone or associated with the MDR-Regional Database proposed workshop;

33. Adopt the new Terms of Reference for the FIRMS Regional Focal Point.

34. Nominate a RECOFI-FIRMS regional focal point

35. Urge countries to develop and/or update their fisheries inventories, and initiate the development of the stocks inventories based on RECOFI priority species.

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

36. Nominate a regional expert to be involved in FAO's SDG14.4.1 capacity building activities;

37. Task the WGFM to review the SDG 14.4.1 reporting guidelines once published as e-training course, and to develop recommendations for the Commission as to RECOFI's possible involvement.

Appendix 1

Status of 2017 reference year national aquaculture statistical data reporting to FAO by RECOFI member countries

Table 1. Summary of 2017 reference year national aquaculture production statistical data reporting to FAO by RECOFI member states

Country	Date of first report to FAO of 2017 national aquaculture data	ASQN1 Form		FishStat-AQ Form		
		Production quantity by species	Unit price by species for first sale (per kg)	Aquaculture area & facility	Seed production quantity & seed uses	Production quantity and unit price by culture method by species
Bahrain	no report	No	No	No	No	No
Iran, Islamic Republic of	07-10-2018	Yes	Yes	No	No	No
Iraq	31-07-2018	Yes	Yes	Yes	Yes	Yes
Kuwait	no report	No	No	No	No	No
Oman	15-11-2018	Yes	Yes	No	No	Yes
Qatar	27-08-2018	Yes	Yes	No	No	Yes
Saudi Arabia, Kingdom of	no report	No	No	No	No	No
United Arab Emirates	no report	No	No	No	No	No

The total aquaculture production registered in FAO global aquaculture production statistics database for the most recent ten-year period (2013-2017) for RECOFI countries are shown in Table 2.

Table 2: National aquaculture production and capture production registered in FAO global aquaculture production statistics database and FAO global capture production statistics database for RECOFI countries in the most recent five years (2013-2017)

Unit: tonnes, in live weight

			2013	2014	2015	2016	2017
Aquaculture	Bahrain	Marine/ coastal	-	5.71	...	14.21	...
	Iran	Inland aquaculture	312627	297576	325858	366636	366505
		Marine/ coastal	12698	22598	20260	31493	46382
	Iraq	Inland aquaculture	14060	26625	24803	28835	31814
	Kuwait	Inland waters	301	F 295	F 260	185.76	F 175
		Marine/ coastal	F 2	F 2	F 2	10.4	F 175
	Oman	Inland aquaculture	3	5.4	20	33	77.25
		Marine/ coastal	350	277	150	70	...
	Qatar	Inland aquaculture	56	56	10	10	10
		Marine/ coastal	-	-	-	-	-
	Saudi Arabia	Inland aquaculture	5614	6060	5280	7590	F 7600
		Marine/ coastal	F 3652	17820	24720	32330	F 47400
	United Arab Emirates	Inland aquaculture	F 120	F 148	F 150	78.9	258
		Marine/ coastal	660	F 640	F 640	2606	2997
Capture	Bahrain	Inland waters	0	0	0	0	0
		Marine areas	14976	15854	F 15000	F 15000	F 15000
	Iran	Inland waters	85974	91314	88047	94788	97419
		Marine areas	467602	530899	543650	597040	692752
	Iraq	Inland waters	53460	53531	22848	F 26000	28877
		Marine areas	3393	5469	4448	F 5300	6343
	Kuwait	Inland waters	0	0	0	0	0
		Marine areas	4633	4197	4287	5493	3978
	Oman	Inland waters	0	0	0	0	0
		Marine areas	206169	211037	257022	279606	347539
	Qatar	Inland waters	0	0	0	0	0
		Marine areas	12006	16213	15203	14516	15358
	Saudi Arabia	Inland waters	0	0	0	0	0
		Marine areas	71946	68660	68130	68082	F 68000
	United Arab Emirates	Inland waters	0	0	0	0	0
		Marine areas	F 73000	F 73203	F 73000	F 73000	F 73000
TOTAL			**1343302**	**1442485**	**1493788**	**1648717**	**1851659**

Note: Data registered in FAO global production statistics database include estimates made by FAO for some species. Estimated production volumes are indicated with the marking with "F" in front of the data.

Table 3: The list of farmed aquatic species from RECOFI region registered as "species items" in FAO global aquaculture production statistics database as of 2017 statistical reference year

Main grouping	Order	Family	Scientific name	FAO English name	ASFIS Code
CRUSTACEA	NATANTIA	PALAEMONIDAE	Macrobrachium rosenbergii	Giant river prawn	PRF
CRUSTACEA	NATANTIA	PENAEIDAE	Penaeus indicus	Indian white prawn	PNI
CRUSTACEA	NATANTIA	PENAEIDAE	Penaeus monodon	Giant tiger prawn	GIT
CRUSTACEA	NATANTIA	PENAEIDAE	Penaeus semisulcatus	Green tiger prawn	TIP
CRUSTACEA	NATANTIA	PENAEIDAE	Penaeus vannamei	Whiteleg shrimp	PNV
CRUSTACEA	REPTANTIA	ASTACIDAE	Astacus leptodactylus	Danube crayfish	CRD
INVERTEBRATA AQUATICA	HOLOTHUROIDEA	HOLOTHURIIDAE	Holothuria scabra	Sandfish	HFC
MOLLUSCA	BIVALVIA	OSTREIDAE	Crassostrea gigas	Pacific cupped oyster	OYG
PISCES	ACANTHUROIDEI	SIGANIDAE	Siganus canaliculatus	White-spotted spinefoot	SCN
PISCES	ACANTHUROIDEI	SIGANIDAE	Siganus spp	Spinefeet(=Rabbitfishes) nei	SPI
PISCES	ACIPENSERIFORMES	ACIPENSERIDAE	Acipenser baerii	Siberian sturgeon	APB
PISCES	ACIPENSERIFORMES	ACIPENSERIDAE	Acipenser gueldenstaedtii	Danube sturgeon(=Osetr)	APG
PISCES	ACIPENSERIFORMES	ACIPENSERIDAE	Acipenseridae	Sturgeons nei	STU
PISCES	CYPRINIFORMES	CYPRINIDAE	Ctenopharyngodon idellus	Grass carp(=White amur)	FCG
PISCES	CYPRINIFORMES	CYPRINIDAE	Cyprinus carpio	Common carp	FCP
PISCES	CYPRINIFORMES	CYPRINIDAE	Hypophthalmichthys molitrix	Silver carp	SVC
PISCES	CYPRINIFORMES	CYPRINIDAE	Hypophthalmichthys nobilis	Bighead carp	BIC
PISCES	MUGILIFORMES	MUGILIDAE	Mugil cephalus	Flathead grey mullet	MUF
PISCES	MUGILIFORMES	MUGILIDAE	Mugilidae	Mullets nei	MUL
PISCES	MUGILIFORMES	MUGILIDAE	Valamugil seheli	Bluespot mullet	VMH
PISCES	PERCOIDEI	CARANGIDAE	Seriola dumerili	Greater amberjack	AMB
PISCES	PERCOIDEI	CENTROPOMIDAE	Lates calcarifer	Barramundi(=Giant seaperch)	GIP
PISCES	PERCOIDEI	CICHLIDAE	Oreochromis (=Tilapia) spp	Tilapias nei	TLP
PISCES	PERCOIDEI	CICHLIDAE	Oreochromis aureus	Blue tilapia	OEA
PISCES	PERCOIDEI	CICHLIDAE	Oreochromis mossambicus	Mozambique tilapia	TLM
PISCES	PERCOIDEI	CICHLIDAE	Oreochromis niloticus	Nile tilapia	TLN
PISCES	PERCOIDEI	CICHLIDAE	Oreochromis spilurus	Sabaki tilapia	TLL
PISCES	PERCOIDEI	LUTJANIDAE	Lutjanus argentimaculatus	Mangrove red snapper	RES
PISCES	PERCOIDEI	LUTJANIDAE	Lutjanus malabaricus	Malabar blood snapper	MAL

Main grouping	Order	Family	Scientific name	FAO English name	ASFIS Code
PISCES	PERCOIDEI	MORONIDAE	Dicentrarchus labrax	European seabass	BSS
PISCES	PERCOIDEI	SCIAENIDAE	Sciaenidae	Croakers, drums nei	CDX
PISCES	PERCOIDEI	SERRANIDAE	Epinephelus coioides	Orange-spotted grouper	ENI
PISCES	PERCOIDEI	SERRANIDAE	Epinephelus spp	Groupers nei	GPX
PISCES	PERCOIDEI	SERRANIDAE	Epinephelus tauvina	Greasy grouper	EPT
PISCES	PERCOIDEI	SPARIDAE	Acanthopagrus berda	Goldsilk seabream	MLB
PISCES	PERCOIDEI	SPARIDAE	Acanthopagrus latus	Yellowfin seabream	YWF
PISCES	PERCOIDEI	SPARIDAE	Rhabdosargus sarba	Goldlined seabream	RSS
PISCES	PERCOIDEI	SPARIDAE	Sparidae	Porgies, seabreams nei	SBX
PISCES	PERCOIDEI	SPARIDAE	Sparidentex hasta	Sobaity seabream	SZH
PISCES	PERCOIDEI	SPARIDAE	Sparus aurata	Gilthead seabream	SBG
PISCES	PISCES MISCELLANEA		Osteichthyes	Marine fishes nei	MZZ
PISCES	SALMONIFORMES	SALMONIDAE	Oncorhynchus mykiss	Rainbow trout	TRR
PISCES	SCOMBROIDEI	SCOMBRIDAE	Thunnus albacares	Yellowfin tuna	YFT
PISCES	SILURIFORMES	CLARIIDAE	Clarias gariepinus	North African catfish	CLZ

Appendix 2

National aquaculture production quantity and unit prices of RECOFI Member States registered in the FAO global aquaculture production statistic database 1950-2017 --- showing the most recent five years (2013-2017)

Important note: Those "F" symbols next to the numeric figures indicate that the values represented by the figures, for quantities or for unit prices, are of "FAO estimates" in nature. The "FAO estimates" are often registered when data are not reported by member states.

Symbols in the tables:

Environment Code	MA - Marine / sea water; IN – Freshwater; BW – Brackishwater
Quantity	t – tonnes in live weight equivalent
Price/Kg	Farm-gate price, or first sale price. National currency is preferred for reporting to FAO.

i. The Kindgdom of Bahrain

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016		2017
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	t	-	...	...	...		...
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	USD	0	...	...	...		...
ENI	Epinephelus coioides	Orange-spotted grouper	MA	t	-	0.571	-	0.321		...
ENI	Epinephelus coioides	Orange-spotted grouper	MA	USD	0	...	0	...		...
ENI	Epinephelus coioides	Orange-spotted grouper	MA	BHD	...	6	...	6	F	...
RES	Lutjanus argentimaculatus	Mangrove red snapper	MA	t	-	...	...	...		...
RES	Lutjanus argentimaculatus	Mangrove red snapper	MA	USD	0	...	...	...		...
SBG	Sparus aurata	Gilthead seabream	MA	t	-	2.105	-	13.68		...
SBG	Sparus aurata	Gilthead seabream	MA	USD	0	...	0	...		...
SBG	Sparus aurata	Gilthead seabream	MA	BHD	...	4	...	4	F	...
SZH	Sparidentex hasta	Sobaity seabream	MA	t	-	2.892	-	0.207		...
SZH	Sparidentex hasta	Sobaity seabream	MA	USD	0	...	0	...		...
SZH	Sparidentex hasta	Sobaity seabream	MA	BHD	...	4	...	4	F	...
SCN	Siganus canaliculatus	White-spotted spinefoot	MA	t	-	0.142	...	...		...
SCN	Siganus canaliculatus	White-spotted spinefoot	MA	USD	0	...	...	...		...
SCN	Siganus canaliculatus	White-spotted spinefoot	MA	BHD	...	3	...	...		...

ii. The Islamic Republic of Iran

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013		2014		2015		2016		2017	
FCP	Cyprinus carpio	Common carp	IN	t	41971		51102		46016		50274		49001	
FCP	Cyprinus carpio	Common carp	IN	USD	2.8	F	2.8	F	2.8	F	2.8	F	2.8	F
FCG	Ctenopharyngodon idellus	Grass carp(=White amur)	IN	t	25182		17034		27610		30164		29401	
FCG	Ctenopharyngodon idellus	Grass carp(=White amur)	IN	USD	3	F	3	F	3	F	3	F	3	F
SVC	Hypophthalmichthys molitrix	Silver carp	IN	t	92336		85171		101235		110603		107803	
SVC	Hypophthalmichthys molitrix	Silver carp	IN	USD	2.5	F	2.5	F	2.5	F	2.5	F	2.5	F
BIC	Hypophthalmichthys nobilis	Bighead carp	IN	t	8394		17034		9203		10055		9800	
BIC	Hypophthalmichthys nobilis	Bighead carp	IN	USD	2.5	F	2.5	F	2.5	F	2.5	F	2.5	F
STU	Acipenseridae	Sturgeons nei	IN	t	564		650		1071		2146		2618	
STU	Acipenseridae	Sturgeons nei	IN	USD	3	F	3	F	3	F	3	F	3	F
TRR	Oncorhynchus mykiss	Rainbow trout	IN	t	143917		126515		140632		163325		167830	
TRR	Oncorhynchus mykiss	Rainbow trout	IN	USD	3	F	3	F	3	F	3	F	3	F
MZZ	Osteichthyes	Marine fishes nei	MA	t	...		123		2465		10162	F	14050	
MZZ	Osteichthyes	Marine fishes nei	MA	USD	...		3.5	F	3.5	F	3.5	F	3.5	F
PRF	Macrobrachium rosenbergii	Giant river prawn	IN	t	63		18		11		11		16	
PRF	Macrobrachium rosenbergii	Giant river prawn	IN	USD	8	F	8	F	8	F	8	F	8	F
CRD	Astacus leptodactylus	Danube crayfish	IN	t	200		52		80		58		36	
CRD	Astacus leptodactylus	Danube crayfish	IN	USD	8	F	8	F	8	F	8	F	8	F
PNV	Penaeus vannamei	Whiteleg shrimp	BW	t	12698		22475		17795		21331		32332	
PNV	Penaeus vannamei	Whiteleg shrimp	BW	USD	6	F	6	F	6	F	6	F	6	F
PNI	Penaeus indicus	Indian white prawn	BW	t	-		-		...		...		...	
PNI	Penaeus indicus	Indian white prawn	BW	USD	...		0		...		...		...	

iii. Iraq

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
FCP	Cyprinus carpio	Common carp	IN	t	12310	25600	22303	26335	29564
FCP	Cyprinus carpio	Common carp	IN	USD	6	6	6	6.5	5.5
FCG	Ctenopharyngodon idellus	Grass carp(=White amur)	IN	t	750	759 F	1100	1500	1350
FCG	Ctenopharyngodon idellus	Grass carp(=White amur)	IN	USD	5	6 F	4	4	4
SVC	Hypophthalmichthys molitrix	Silver carp	IN	t	500	266	1000	1000	900
SVC	Hypophthalmichthys molitrix	Silver carp	IN	USD	4	4	3.5	3	3
MUL	Mugilidae	Mullets nei	IN	t	500	...	400	...	...
MUL	Mugilidae	Mullets nei	IN	USD	6	...	2	...	...

iv. The State of Kuwait

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
TLN	Oreochromis niloticus	Nile tilapia	BW	t	301	295 F	260 F	185.8	175 F
TLN	Oreochromis niloticus	Nile tilapia	BW	KWD	...	...	...	1.532	1.5 F
TLN	Oreochromis niloticus	Nile tilapia	BW	USD	5.2	4.52 F	4.5 F	...	...
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	t	-	-	-	2.5	2 F
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	USD	0	0	0	...	...
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	KWD	...	...	...	2	2 F
ENI	Epinephelus coioides	Orange-spotted grouper	MA	t	-	-	-	0.3	2 F
ENI	Epinephelus coioides	Orange-spotted grouper	MA	USD	0	0	0	...	...
ENI	Epinephelus coioides	Orange-spotted grouper	MA	KWD	...	...	...	2	2 F
MAL	Lutjanus malabaricus	Malabar blood snapper	MA	t	-	-	-	1.1	...
MAL	Lutjanus malabaricus	Malabar blood snapper	MA	USD	0	0	0	...	...
MAL	Lutjanus malabaricus	Malabar blood snapper	MA	KWD	...	...	...	2	...
SBG	Sparus aurata	Gilthead seabream	MA	t	...	...	...	...	...
SBG	Sparus aurata	Gilthead seabream	MA	USD	...	...	...	...	...
SZH	Sparidentex hasta	Sobaity seabream	MA	t	-	-	-	1	11 F
SZH	Sparidentex hasta	Sobaity seabream	MA	USD	0	0	0	...	...
SZH	Sparidentex hasta	Sobaity seabream	MA	KWD	...	...	...	2	4.1 F
MZZ	Osteichthyes	Marine fishes nei	MA	t	2 F	2 F	2 F	5.5	160 F
MZZ	Osteichthyes	Marine fishes nei	MA	USD	6 F	6 F	6 F	...	...
MZZ	Osteichthyes	Marine fishes nei	MA	KWD	...	...	...	1.532	2.1 F

v. The Sultanate of Oman

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
TLN	Oreochromis niloticus	Nile tilapia	IN	t	3	5.4	20	33	77.248
TLN	Oreochromis niloticus	Nile tilapia	IN	USD	5	3.85	3.9	3.9	...
TLN	Oreochromis niloticus	Nile tilapia	IN	OMR	...	...	...	...	1.5
YWF	Acanthopagrus latus	Yellowfin seabream	MA	t	-	-	...	...	...
YWF	Acanthopagrus latus	Yellowfin seabream	MA	USD	0	0	...	...	...
PNI	Penaeus indicus	Indian white prawn	BW	t	350	277	150	70	-
PNI	Penaeus indicus	Indian white prawn	BW	OMR	5.516	6.67	6.5 F	6.5	0

vi. The State of Qatar

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
TLN	Oreochromis niloticus	Nile tilapia	IN	t	56	56	10	10	10
TLN	Oreochromis niloticus	Nile tilapia	IN	USD	3.7	3.7	3.7	3.7	3.7
YWF	Acanthopagrus latus	Yellowfin seabream	MA	t	-	-	-	-	-
YWF	Acanthopagrus latus	Yellowfin seabream	MA	USD	0	0	0	0	0
SCN	Siganus canaliculatus	White-spotted spinefoot	MA	t	-	-	-	-	-
SCN	Siganus canaliculatus	White-spotted spinefoot	MA	USD	0	0	0	0	0

vii. The Kingdom of Saudi Arabia

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
FCP	Cyprinus carpio	Common carp	IN	t	-	-	-	...	...
FCP	Cyprinus carpio	Common carp	IN	USD	0	0	0	...	...
TLN	Oreochromis niloticus	Nile tilapia	IN	t	5450	5921	5143	7490	7500 F
TLN	Oreochromis niloticus	Nile tilapia	IN	USD	3	...	...	...	...
TLN	Oreochromis niloticus	Nile tilapia	IN	SAR	...	21	21 F	21 F	21 F
TLL	Oreochromis spilurus	Sabaki tilapia	BW	t	400	370	286	280 F	280 F
TLL	Oreochromis spilurus	Sabaki tilapia	BW	USD	4	...	...	...	...
TLL	Oreochromis spilurus	Sabaki tilapia	BW	SAR	...	24	24 F	24 F	24 F

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
TLP	Oreochromis (=Tilapia) spp	Tilapias nei	BW	t	-	-	-	...	...
TLP	Oreochromis (=Tilapia) spp	Tilapias nei	BW	USD	0	0	0	...	...
CLZ	Clarias gariepinus	North African catfish	IN	t	125	104	111	100 F	100 F
CLZ	Clarias gariepinus	North African catfish	IN	USD	3	...	...	...	...
CLZ	Clarias gariepinus	North African catfish	IN	SAR	...	21 F	21 F	21 F	21 F
APG	Acipenser gueldenstaedtii	Danube sturgeon(=Osetr)	IN	t	39	35	26	...	...
APG	Acipenser gueldenstaedtii	Danube sturgeon(=Osetr)	IN	USD	90	90 F	90 F	...	...
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	t	20	2525	3888	5585	5500 F
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	USD	6	...	...	...	...
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	SAR	...	30	30 F	30 F	30 F
MUF	Mugil cephalus	Flathead grey mullet	MA	t	60	60	47	50 F	50 F
MUF	Mugil cephalus	Flathead grey mullet	MA	USD	3	...	...	...	...
MUF	Mugil cephalus	Flathead grey mullet	MA	SAR	...	30	30 F	30 F	30 F
GPX	Epinephelus spp	Groupers nei	MA	t	125	140	108	100 F	100 F
GPX	Epinephelus spp	Groupers nei	MA	USD	5	...	...	...	...
GPX	Epinephelus spp	Groupers nei	MA	SAR	...	40	40 F	40 F	40 F
RSS	Rhabdosargus sarba	Goldlined seabream	MA	t	-	...	...	...	...
RSS	Rhabdosargus sarba	Goldlined seabream	MA	USD	0	...	...	...	...
SBG	Sparus aurata	Gilthead seabream	MA	t	1825 F	1685	3057	2220	2230 F
SBG	Sparus aurata	Gilthead seabream	MA	USD	6	...	...	...	...
SBG	Sparus aurata	Gilthead seabream	MA	SAR	...	30	30 F	30 F	30 F
SZH	Sparidentex hasta	Sobaity seabream	MA	t	500 F	...	...	...	...
SZH	Sparidentex hasta	Sobaity seabream	MA	USD	6	...	...	...	...
SPI	Siganus spp	Spinefeet(=Rabbitfishes) nei	MA	t	50	50	39	40 F	40 F
SPI	Siganus spp	Spinefeet(=Rabbitfishes) nei	MA	USD	5	...	...	...	...
SPI	Siganus spp	Spinefeet(=Rabbitfishes) nei	MA	SAR	...	30	30 F	30 F	30 F
PNV	Penaeus vannamei	Whiteleg shrimp	MA	t	...	12980	17295	24055	39200 F
PNV	Penaeus vannamei	Whiteleg shrimp	MA	USD	...	...	...	...	...
PNV	Penaeus vannamei	Whiteleg shrimp	MA	SAR	...	30	30 F	30 F	30 F
PNI	Penaeus indicus	Indian white prawn	MA	t	660 F	...	...	...	...
PNI	Penaeus indicus	Indian white prawn	MA	USD	12	...	...	...	...

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
HFC	Holothuria scabra	Sandfish	BW	t	12	10 F	...	...	...
HFC	Holothuria scabra	Sandfish	BW	USD	5	5 F	...	...	...

8. United Arab Emirates

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
TLM	Oreochromis mossambicus	Mozambique tilapia	IN	t	...	...	...	...	18 F
TLM	Oreochromis mossambicus	Mozambique tilapia	IN	USD	...	...	...	...	3 F
TLN	Oreochromis niloticus	Nile tilapia	IN	t	85 F	138 F	130 F	46.9	20 F
TLN	Oreochromis niloticus	Nile tilapia	IN	USD	3 F	3 F	3 F	3 F	3 F
OEA	Oreochromis aureus	Blue tilapia	IN	t	-	...	...	...	...
OEA	Oreochromis aureus	Blue tilapia	IN	USD	0	...	...	...	...
APB	Acipenser baerii	Siberian sturgeon	IN	t	...	...	20 F	32	220
APB	Acipenser baerii	Siberian sturgeon	IN	USD	...	...	15 F	15 F	15 F
STU	Acipenseridae	Sturgeons nei	IN	t	35 F	10 F	...	...	...
STU	Acipenseridae	Sturgeons nei	IN	USD	15 F	15 F	...	...	...
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	t	-	-	-	-	32
GIP	Lates calcarifer	Barramundi(=Giant seaperch)	MA	USD	0	0	0	0	7.5 F
MUL	Mugilidae	Mullets nei	MA	t	-	...	...	...	...
MUL	Mugilidae	Mullets nei	MA	USD	0	...	...	...	...
EPT	Epinephelus tauvina	Greasy grouper	MA	t	-	...	...	...	...
EPT	Epinephelus tauvina	Greasy grouper	MA	USD	0	...	...	...	...
ENI	Epinephelus coioides	Orange-spotted grouper	MA	t	-	-	-	-	190
ENI	Epinephelus coioides	Orange-spotted grouper	MA	USD	0	0	0	0	7.5 F
BSS	Dicentrarchus labrax	European seabass	MA	t	10	...	...	584	665
BSS	Dicentrarchus labrax	European seabass	MA	USD	7.3	...	...	7.4 F	7.5 F
RSS	Rhabdosargus sarba	Goldlined seabream	MA	t	-	...	...	...	...
RSS	Rhabdosargus sarba	Goldlined seabream	MA	USD	0	...	...	...	...
SBG	Sparus aurata	Gilthead seabream	MA	t	370	290 F	270 F	1710	1810
SBG	Sparus aurata	Gilthead seabream	MA	USD	7.4	7.4 F	7.4 F	7.4 F	7.5 F
SZH	Sparidentex hasta	Sobaity seabream	MA	t	...	...	...	...	...
SZH	Sparidentex hasta	Sobaity seabream	MA	USD	...	...	...	...	...

Species Code	Scientific Name	English Name (FAO)	Environment Code	Quantity (Tonnes) / Price/Kg	2013	2014	2015	2016	2017
SCN	Siganus canaliculatus	White-spotted spinefoot	MA	t	-	...	...	...	...
SCN	Siganus canaliculatus	White-spotted spinefoot	MA	USD	0	...	...	...	...
AMB	Seriola dumerili	Greater amberjack	MA	t	-	-	-	-	70
AMB	Seriola dumerili	Greater amberjack	MA	USD	0	0	0	0	7.5 F
TIP	Penaeus semisulcatus	Green tiger prawn	MA	t	-	...	...	...	...
TIP	Penaeus semisulcatus	Green tiger prawn	MA	USD	0	...	...	...	...
PNI	Penaeus indicus	Indian white prawn	MA	t	280 F	350 F	370 F	312	225
PNI	Penaeus indicus	Indian white prawn	MA	USD	8.2 F	8.2 F	8.2 F	8.2 F	8.2 F
OYG	Crassostrea gigas	Pacific cupped oyster	MA	t	-	-	-	-	5
OYG	Crassostrea gigas	Pacific cupped oyster	MA	USD	0	0	0	0	5 F

Appendix 3

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

Summary of data submitted under the Recommendation

Updated from RECOFI-WGFM-11 with taking into account Qatar's submission.

The 2012 and 2013 catch and effort data disaggregated by fishing gears and vessel categories was submitted by Bahrain, Iran (Islamic Republic of), 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, while for the 2017 data submission Oman, Qatar and Saudi Arabia have made submissions to date. Saudi Arabia submitted data for both 2014 and 2015. However, Oman has not provided data for previous years (2014-2015). Iran (Islamic Republic of), Oman and Qatar are the only countries so far to have submitted data in 2018/2019. No data has been submitted by Kuwait and the United Arab Emirates.

A review of the coverage in catch amount data is presented in the table below to further clarify differences in country submissions between Minimum Data Reporting and the RECOFI Regional Capture Production. database 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
Coverage in catch amount [Min Data reporting]/[Regional Capture production DB[2]]						
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%	65%	84%	64%
Speedboat	62%		34%	35%	16%	36%
Catch composition reported by gears						
Shrimp trawl	29%	17%	6%	0%		28%
Gillnet	14%	83%	62%	36%	9%	22%
Wire trap	40%		3%	7%	35%	35%
Hook-and-Line	4%		4%	22%		14%

[2] The RECOFI Regional Capture Production, which can be accessed at http://www.fao.org/fishery/collection/recofi-capture-production/en

Others	13%			34%	56%	
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%)

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

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

Appendix 4

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

i) The Kingdom of Bahrain

		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	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						
2-a-iv	Catch of shrimp	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	
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Catch of other finfishes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5-a	*Shrimp species composition*											
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						
	Alternative annual efforts						Y	Y	Y	Y	Y	
3-b	Total catch	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	*Species composition of discards*											
Wire-traps												
3-a	Number of days at sea	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	
	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	*Species composition of discards*											
Hook-and-line												
3-a	Number of days at sea	Y	Y	Y	Y	Y						

		2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
	Alternative annual efforts						Y	Y	Y	Y	Y	
3-b	Total catch	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	*Species composition of discards*											

Narrow-barred Spanish mackerel

4-a-i	*Annual catch*	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	*Catch, effort and fork length composition of targeted gears*											
4-b	Relevant information on narrow-barred Spanish mackerel											

* average fork length

ii) The Islamic Republic of Iran

		2017	2015	2016	2014	2013	2012	2011	2010	2009	2008	2007	2006>
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	Y				
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	Y											
	Total number of days at sea by vessel type/ category	Y											
2-a-iv	Catch of shrimp	Y				Y	Y	Y	Y				
	Catch of narrow-barred Spanish mackerel	Y				Y	Y	Y	Y				
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays	Y				Y	Y	Y	Y				
	Catch of other finfishes	Y				Y	Y	Y	Y				
5-a	*Shrimp species composition*												
2-a-v	Amount of discards	Y				Y	Y	Y	Y				
2-a-vi	Species composition of bycatch and discard												
2-b	BRD related information	Y				Y**	Y**	Y**	Y**				
					* Total tow duration reported; ** General configuration								
Gillnets													
3-a	Number of days at sea	Y				Y	Y	Y	Y				
	Alternative annual efforts												
3-b	Total catch	Y				Y	Y	Y	Y				
	Catch of narrow-barred Spanish mackerel	Y				Y	Y	Y	Y				
	Catch of emperors, groupers, sharks, and rays	Y				Y	Y	Y	Y				
	Amount of discards												
5-b	*Species composition of discards*												
Wire-traps													
3-a	Number of days at sea	Y				Y	Y	Y	Y				
	Alternative annual efforts												
3-b	Total catch	Y				Y	Y	Y	Y				
	Catch of narrow-barred Spanish mackerel	Y				Y	Y	Y	Y				
	Catch of emperors, groupers, sharks, and rays	Y				Y	Y	Y	Y				
	Amount of discards												
5-b	*Species composition of discards*												
Hook-and-line													
3-a	Number of days at sea	Y				Y	Y	Y	Y				
	Alternative annual efforts												

		2017	2015	2016	2014	2013	2012	2011	2010	2009	2008	2007	2006>
3-b	Total catch	Y				Y	Y	Y	Y				
	Catch of narrow-barred Spanish mackerel	Y				Y	Y	Y	Y				
	Catch of emperors, groupers, sharks, and rays	Y				Y	Y	Y	Y				
	Amount of discards												
5-b	*Species composition of discards*												
Narrow-barred Spanish mackerel													
4-a-i	*Annual catch*	Y				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												

		2017	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	Y						
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	Y												
	Total number of days at sea by vessel type/ category	Y												
2-a-iv	Catch of shrimp	Y			Y	Y	Y	Y						
	Catch of narrow-barred Spanish mackerel	Y			Y	Y	Y	Y						
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays	Y			Y	Y	Y	Y						
	Catch of other finfishes	Y			Y	Y	Y	Y						
5-a	*Shrimp species composition*													
2-a-v	Amount of discards	Y			Y	Y	Y	Y						
2-a-vi	Species composition of bycatch and discard													
2-b	BRD related information	Y			Y**	Y**	Y**	Y**						
					* Total tow duration reported; ** General configuration									
Gillnets														
3-a	Number of days at sea	Y			Y	Y	Y	Y						
	Alternative annual efforts													
3-b	Total catch	Y			Y	Y	Y	Y						
	Catch of narrow-barred Spanish mackerel	Y			Y	Y	Y	Y						
	Catch of emperors, groupers, sharks, and rays	Y			Y	Y	Y	Y						
	Amount of discards													
5-b	*Species composition of discards*													

		2017	2015	2016	2014	2013	2012	2011	2010	2009	2008	2007	2006>
Wire-traps													
3-a	Number of days at sea	Y			Y	Y	Y	Y					
	Alternative annual efforts												
3-b	Total catch	Y			Y	Y	Y	Y					
	Catch of narrow-barred Spanish mackerel	Y			Y	Y	Y	Y					
	Catch of emperors, groupers, sharks, and rays	Y			Y	Y	Y	Y					
	Amount of discards												
5-b	*Species composition of discards*												
Hook-and-line													
3-a	Number of days at sea	Y			Y	Y	Y	Y					
	Alternative annual efforts												
3-b	Total catch	Y			Y	Y	Y	Y					
	Catch of narrow-barred Spanish mackerel	Y			Y	Y	Y	Y					
	Catch of emperors, groupers, sharks, and rays	Y			Y	Y	Y	Y					
	Amount of discards												
5-b	*Species composition of discards*												
Narrow-barred Spanish mackerel													
4-a-i	*Annual catch*	Y			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	*Shrimp species composition*												
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	*Species composition of discards*												
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	*Species composition of discards*												
Hook-and-line													
3-a	Number of days at sea												
	Alternative annual efforts												

		2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
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) The 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	*Shrimp species composition*												
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	*Species composition of discards*												
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	*Species composition of discards*												
Hook-and-line													
3-a	Number of days at sea												
	Alternative annual efforts												

		2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
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) The Sultanate of Oman

		2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006>
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	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	Y	Y					
2-a-iv	Catch of shrimp	Y	Y			Y	Y	Y					
	Catch of narrow-barred Spanish mackerel	Y	Y			Y	Y	Y					
	Catch of swimming crab, cuttlefish, emperors, groupers, sharks, and rays	Y	Y**			Y**	Y**	Y**					
	Catch of other finfishes	Y	Y			Y**	Y**	Y**					
5-a	*Shrimp species composition*												
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	Y	Y			~1984
	Alternative annual efforts												
3-b	Total catch	Y	Y			Y	Y	Y	Y	Y			~1984
	Catch of narrow-barred Spanish mackerel	Y	Y			Y	Y	Y	Y	Y			~1984
	Catch of emperors, groupers, sharks, and rays	Y	Y			Y	Y	Y	Y	Y			~1984
	Amount of discards												
5-b	*Species composition of discards*												
Wire-traps													
3-a	Number of days at sea	Y	Y			Y	Y	Y	Y	Y			~1984
	Alternative annual efforts												
3-b	Total catch	Y	Y			Y	Y	Y	Y	Y			~1984
	Catch of narrow-barred Spanish mackerel	Y	Y			Y	Y	Y	Y	Y			~1984
	Catch of emperors, groupers, sharks, and rays	Y	Y			Y	Y	Y	Y	Y			~1984
	Amount of discards												
5-b	*Species composition of discards*												
Hook-and-line													
3-a	Number of days at sea	Y	Y			Y	Y	Y	Y	Y			~1984
	Alternative annual efforts												

		2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006>
3-b	Total catch	Y	Y			Y	Y	Y	Y	Y			~1984
	Catch of narrow-barred Spanish mackerel	Y	Y			Y	Y	Y	Y	Y			~1984
	Catch of emperors, groupers, sharks, and rays	Y	Y			Y	Y	Y	Y	Y			~1984
	Amount of discards												
5-b	*Species composition of discards*												
Narrow-barred Spanish mackerel													
4-a-i	*Annual catch*	Y	Y			Y	Y	Y					
	Monthly catch	Y	Y			Y	Y	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												

vi) The State of Qatar

		2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006>
Gillnets		**	**	**	**	**	**						
3-a	Number of days at sea	Y	Y	Y	Y	Y	Y	Y*	Y*	Y*			
	Alternative annual efforts	Y	Y	Y	Y	Y	Y	Y*	Y*	Y*			
3-b	Total catch	Y	Y	Y	Y	Y	Y	Y*	Y*	Y*			
	Catch of narrow-barred Spanish mackerel	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*			
	Amount of discards												
5-b	*Species composition of discards*												

* 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*	Y*	Y*			
	Alternative annual efforts	Y	Y	Y	Y	Y	Y	Y*	Y*	Y*			
3-b	Total catch	Y	Y	Y	Y	Y	Y	Y*	Y*	Y*			
	Catch of narrow-barred Spanish mackerel	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*			
	Amount of discards												
5-b	*Species composition of discards*												

* 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	Y	Y						
	Alternative annual efforts	Y	Y	Y	Y	Y	Y						
3-b	Total catch	Y	Y	Y	Y	Y	Y						
	Catch of narrow-barred Spanish mackerel	Y	Y	Y	Y	Y	Y						
	Catch of emperors, groupers, sharks, and rays	Y	Y	Y	Y	Y	Y						
	Amount of discards												
5-b	*Species composition of discards*												

Narrow-barred Spanish mackerel													
4-a-i	*Annual catch*	Y	Y	Y	Y								
	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												

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

vii) The 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	Y	Y	~1991
2-a-ii	Number of vessels by types and size categories	Y	Y	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**	Y**	Y**	~1991
	Total number of days at sea by vessel type/ category	Y	Y	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	Y	Y	~1991
	Catch of narrow-barred Spanish mackerel	Y	Y	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	Y	Y	~1991
	Catch of other finfishes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	~1991
5-a	*Shrimp species composition*	Y	Y	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	Y	Y			
	Alternative annual efforts	Y	Y	Y	Y	Y	Y	Y					
3-b	Total catch	Y	Y	Y	Y	Y	Y	Y	Y	Y			
	Catch of narrow-barred Spanish mackerel	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*			
	Amount of discards												
5-b	*Species composition of discards*												
Wire-traps													
3-a	Number of days at sea	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
	Alternative annual efforts	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
3-b	Total catch	Y	Y	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	Y	Y	~1994
	Catch of emperors, groupers, sharks, and rays	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	~1994
	Amount of discards												
5-b	*Species composition of discards*												
Hook-and-line													
3-a	Number of days at sea	Y	Y	Y	Y	Y	Y	Y	Y	Y			

		2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004>
	Alternative annual efforts	Y	Y	Y	Y	Y	Y	Y					
3-b	Total catch	Y	Y	Y	Y	Y	Y	Y	Y	Y			
	Catch of narrow-barred Spanish mackerel	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*			
	Amount of discards												
5-b	*Species composition of discards*												
Narrow-barred Spanish mackerel													
4-a-i	*Annual catch*	Y	Y	Y	Y	Y	Y						
	Monthly catch	Y	Y	Y	Y	Y	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												

Appendix 5

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:

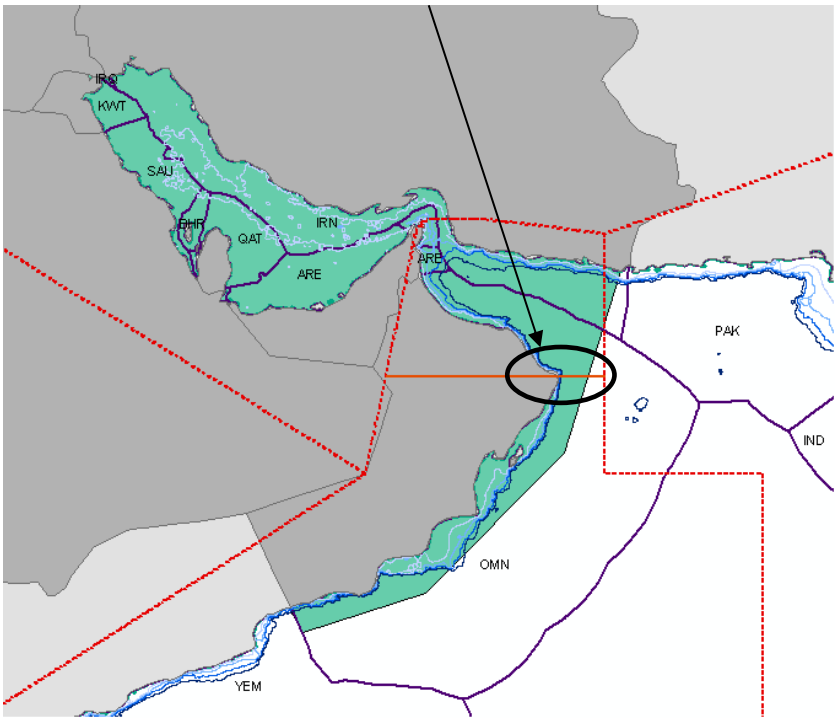
<< In order to properly geo-reference marine resources and fisheries in the RECOFI area, and in particular for distinguishing the fisheries operating in the Oman Sea, and those operating in the south Western part of the Arabian Sea, RECOFI fifth WGFM (Tehran, Iran (Islamic Republic of) 9-12 October 2011) 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 Commission-9 (May 2017) meeting reviewed the matter with the following report:

Regarding the proposed geographic sub-divisions to be endorsed as a RECOFI standard (i.e. split FAO subarea 51.3 into divisions 51.3.1 - Oman Sea - and 51.3.2 - Arabian Sea (South Western)), the Commission was of the opinion that it had not enough background information and requested the WGFM to re-consider the issue on its next meeting.

The WGFM-11 (February 2019) reviewed the matter with the following report:

The WGFM has been requesting, since its fifth meeting (2011), 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), 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. The Meeting was informed that at its ninth session (2017) the Commission was of the opinion that it did not have enough background information about splitting FAO area 51.3 and requested the WGFM to re-consider the proposal. Following discussion, the WGFM agreed again on splittıng the FAO subarea 51.3 into the divisions 51.3.1 – Oman Sea and 51.3.2 – Arabian Sea (South Western).

Appendix 6

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 custodian[3] 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 on SDG Indicator 14.4.1 starts with the publishing of an e-training course in mid-2019, which explains the nature of the indicator, provides guidelines for the monitoring and reporting mechanism, reviews classic stock assessment methods and introduces/provides training on stock assessment methods applicable in Data Limited situations (DLM). FAO also considers contributing in training workshops where demand and funding resources exist. Finally, FAO proposes to

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

facilitate countries monitoring and dissemination tasks by making available the services of the Fishery and Resources Monitoring System (FIRMS).