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para la  
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## REGIONAL COMMISSION FOR FISHERIES (RECOFI)

### Seventh Session

Tehran, Islamic Republic of Iran, 14–16 May 2013

**Implementation of RECOFI Recommendation RECOFI/6/2011/1 on  
minimum data reporting in the RECOFI area**

### Executive Summary

The Recommendation RECOFI/6/2011/1, entitled “Recommendation on minimum data reporting in the RECOFI area”, endorsed at the sixth session of RECOFI (Rome, Italy, 10-12 May 2011), entered into force on January 2012. Although the timing of data submission was slightly delayed from the agreed due date of 31 August, most Members successfully submitted national catch and effort data separated by gears according to the format agreed individually during the preparatory phase. Some Members also provided their historical catch and effort information. The exchange of data on size of catch was deferred until clear guidance would become available. The need to establish a RECOFI regional database to host data submitted based on the Recommendation and information network was well noted but has been kept unresolved.

### The Commission is invited to:

- confirm its commitment to implement the Recommendation on minimum data reporting and Regional collaborative management;
- report on the progress made to fully address the requirement of the Recommendation as well as to share historical catch and effort information by gears;
- provide guidance on logistics, functionalities and responsibility of establishing and maintaining the Regional database and information network to support the fishery and aquaculture management of the RECOFI Region in a long term.

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## INTRODUCTION

1. The 2<sup>nd</sup> meeting of the RECOFI Working Group on Fisheries Management (WGFM) (Cairo, Egypt, 27-30 October 2008) reviewed the major fisheries in the RECOFI region and identified a set of species of primary concern. The meeting further recommended a pragmatic management scheme based on an Ecosystem Approach to Fisheries Management with adaptive management procedures. The Fifth Session of RECOFI (Dubai, United Arab Emirates, 12-14 May 2009) adopted this recommendation and decided to hold a workshop specifically focusing on a review of data and statistics available in the region and stock status reporting.

2. Facing the lack of information commonly accessible through the Region, the FAO/RECOFI Regional Workshop on Stock Indicators and Stock Status Reporting (Tehran, Islamic Republic of Iran, 26–29 July 2009) focused its attention on identifying key issues in the region and determining the minimum data requirement to address those key issues from the perspective of monitoring stocks and fisheries status. The concept of minimum data requirement was further developed through the third meeting of the WGFM (Doha, Qatar, 20-22 October 2009) and the fourth meeting of the WGFM (Muscat, Sultanate of Oman, 3-5 October 2010) and the Sixth Session of RECOFI (Rome, Italy, 10-12 May 2011) endorsed the Recommendation RECOFI/6/2011/1, entitled “Recommendation on minimum data reporting in the RECOFI area” together with its commitment to implement on January 2012 (Appendix 1).

3. This document summarizes the activities to support implementation of the Recommendation RECOFI/6/2011/1 (hereafter, referred as “Recommendation”) since the Sixth Session of RECOFI, the status of first round submission of data according to the Recommendation, and the remaining issues.

## ACTIVITIES TO SUPPORT IMPLEMENTATION OF THE RECOMMENDATION

4. In order to ensure that all Members would be capable to cope with the minimum data requirement, a series of consultations and survey on national data collection system were held, utilizing the opportunity of other meetings, including the Workshop on Minimum Data Collection and Reporting (Cairo, Egypt, 10-11 July 2011), the fifth meeting of the WGFM (Tehran, Islamic Republic of Iran, 9-12 October 2011), and the Workshop on Social and Economic Aspects of Fisheries in the RECOFI Region (Manama, Bahrain 22-24 April 2012). Through this process, individual Members agreed on its own format for reporting national catch and effort data to address the requirement of the Recommendation and work plans to improve the national data collection system if necessary.

5. The Workshop on Minimum Data Collection and Reporting in July 2011 reviewed the national capacity to fulfil the data collection and reporting requirement defined in the Recommendation based on the preliminary submission of national catch and effort data for recent year(s) in the most convenient formats with readily available species and fisheries classifications catch, together with the outcomes of evaluation surveys that was held during April and May 2011. The meeting confirmed that the Kingdom of Bahrain, Sultanate of Oman, and the Kingdom of Saudi Arabia would have full capacity to address the Recommendation. The State of Qatar and State of Kuwait were in the process to implement additional catch and effort data collection systems to enhance their national capacity to fulfil the reporting requirement defined by the Recommendation. Potential improvements of data to be submitted were discussed with each Member, including the Islamic Republic of Iran.

6. Many Members noted a difficulty in preparing length frequency data for Spanish mackerel, in particular regarding the absence of clear guidance on suitable sampling procedures and the amount of measurement required. Despite the intensive amount of Spanish mackerel size data collected under the Gulf Cooperation Council (GCC) project during 2002 and 2007, data collection was suspended at the completion of project, except in the Kingdom of Bahrain. Noting the importance to integrate all information available into stock assessment, the Sultanate of Oman, the host country of the 2010 GCC Spanish mackerel stock assessment workshop was requested to provide the data used and outcomes of

the 2010 GCC assessment workshop to the Secretariat and other Members to supplement this information.

7. The Workshop noted the importance of size data of catch, either as length/weight frequency or average size, in evaluating stock status and management measures and agreed to seek the possibility to collect size information on commercially important species, including shrimps, groupers and emperors, in addition to Spanish mackerel. Some found the problem in species identification of emperors and groupers and implemented training to enhance the skill of field enumerators.

8. The fifth meeting of the WGFM in October 2011 reviewed the progress made by the Members. The State of Qatar confirmed the smooth operation of the new data collection scheme at landing sites and assured the availability of catch and effort information starting in 2012. The Sultanate of Oman submitted historical data from 2004 and indicated further submission of data dating back to 1985. The Islamic Republic of Iran reported that the data from 2007 was in processing but noted the processing of older data would require more time. The Republic of Iraq and State of Kuwait stated its commitment to submit the required information.

9. The fifth meeting of the WGFM noted the difficulty in collecting size information of catch separated by fishery, and agreed the exchange of size composition data could be deferred until such time when the utilization of this information would be reviewed and defined more clearly. The WGFM also noted the need to strengthen national and regional capacities in relation to species identification, especially for groupers and emperors. The WGFM was advised that, at the present time, there was no standard data collection protocol to fulfil the minimum data reporting requirement. Therefore, it was considered useful for Members to describe their data collection procedures as a means of facilitating better and more accurate interpretation and analysis of information submitted.

10. At the time of the Workshop on Social and Economic Aspects of Fisheries in the RECOFI Region in April 2012, the Secretariat reminded the RECOFI agreement on the Recommendation and that all Member countries are bound to comply with this Recommendation. The workshop noted it necessary to further enhance the coordination between RECOFI and the GCC and other region-wide activities to avoid duplication of work.

#### **DATA SUBMISSION ACCORDING TO THE RECOFI RECOMMENDATION ON MINIMUM DATA REPORTING**

11. While the Recommendation indicates the obligation of all RECOFI Members to submit the agreed set of information to the RECOFI Secretariat prior to 31 August of the following year, no Members succeeded in submitting the 2011 data before this due date in 2012. The status of data submission by countries at the point of 15 March 2013 is summarized in Appendix 2.

12. The first round of data submission based on the Recommendation mainly focused on catch and effort data separated by fishing gears, specifically for shrimp trawls, wire-traps, gillnets and hook-and-lines. The Kingdom of Bahrain, Islamic Republic of Iran, Sultanate of Oman, State of Qatar and Kingdom of Saudi Arabia submitted the 2011 data using the format agreed during the preparation phase. The Kingdom of Bahrain, State of Kuwait, and Kingdom of Saudi Arabia also provided their historical catch and effort information that would contribute substantially to analyze and interpret current status and trend of stocks.

13. At the sixth meeting of the WGFM (Doha, Qatar, 5-8 November 2012), the delegate from the Sultanate of Oman assured its intention to provide its 2011 data as well as historical data, likely in early 2013. The delegate from the State of Kuwait indicated that the data in accordance with the Recommendation was already prepared and waiting for final authorization for submission. The Secretariat has anticipated their submission. The delegate from the State of Qatar reported that its national data collection system had been replaced with a new, more sophisticated system, which allowed for the reflection of catch and effort to be separated by 52 species by gears and by boat categories. The delegate from the United Arab Emirates (UAE) explained that the renovation of its

data collection system would be completed in 2013 and that it would become possible to comply with the Recommendation.

14. Although the timing of data submission was slightly delayed from the agreed due date of 31 August for this first round, the sixth meeting of the WGFM considered that the existing submitted data was determined to be adequate and workable. The WGFM noted the difficulty in collecting data on discards, but was aware of the need to assess them in addition to by-catch, particularly in the case of shrimp trawls and their impact on the ecosystem in the region. The WGFM agreed to keep the submission of data on discards as voluntary.

15. The information required for stock assessment of narrow-barred Spanish mackerel was deferred until further guidance and review would be provided at the Stock Assessment workshop.

## **REGIONAL DATABASE AND INFORMATION NETWORK**

16. The Workshop on Fishery Stock Indicators and Stock Status held in Tehran, Islamic Republic of Iran, 26-29 July 2009, developed the draft RECOFI regional resource monitoring strategy. The main part of the strategy was developed into a resolution and endorsed as the Recommendation RECOFI/6/2011/1 at the sixth session of RECOFI. The draft strategy also noted that “data and information that directly support regional management decision-making should be housed in the Secretariat as a public asset of the Commission” and recommended to take an appropriate action to establish adequate data handling and managing capacity at the Commission’s Secretariat with secured human and financial resources.

17. The fourth meeting of the WGFM, during the discussion of the Recommendation, noted the urgent need for RECOFI to establish the regional database to maintain information required to directly support fisheries management in the region as a public asset of the Commission.

18. The Data Workshop exchanged informal views on desirable locations, formats, functionalities and responsibilities to establish and maintain the RECOFI Regional Fishery Management database and supporting information network. The Data Workshop noted that many miscellaneous tasks would be required in the maintenance and quality control of a regional consolidated database, including the administrative burden of sending notifications, monitoring submissions and pursuing late submissions, and the provision of technical capacity in harmonizing formats and ensuring the quality and coherence of consolidated data. The Data Workshop also agreed on the need of an interactive web page to (i) allow search and extraction of data and information, (ii) upload and download files, and (iii) enable simple information sharing and asked FAO to explore the possible options.

19. The fifth meeting of the WGFM further confirmed the need to establish the Regional Database and Information Network that would support information sharing among Members including those submitted based on the Recommendation and implementation of regional fishery management. The Statistics and Information Service of FAO (FIPS) suggested a range of options and potential services to be able to provide. One Member indicated its interest to host the RECOFI Regional Database and Information Network and agreed to provide a proposal at the sixth meeting of the WGFM.

20. At the sixth meeting of the WGFM, the Secretariat reported that no progress had been made regarding the development of a common database and information network since the fifth meeting of the WGFM. While such a mechanism would be essential in sharing information among members in a transparent and easily accessible manner, the meeting considered it less urgent than ensuring a full compilation of the data and information in accordance with the Recommendation. FAO assured to provide technical backstopping to the catch and effort database in accordance with the data submitted by the Recommendation but only until its establishment in 2012. As an interim, the FAO planned to convert the data submitted by the Recommendation into FishStatJ format to facilitate access and analysis by Members. It was also informed that FAO could provide a limited assistance in a similar way to the currently FAO supported RECOFI web page, which includes the RECOFI document archive, as a temporary solution. This raised the issue on how to fund the regular tasks

and activities that would require support for the implementation of the recommendations and management initiatives in the RECOFI.

21. Management of information exchanges and datasets preparation require several supporting tasks including intensive communications with Members for ensuring timely submission and follow-up clarification of submitted information, quality control and data processing, collation and evaluation of codes and classifications, packaging and transformation of files and formats into those suitable for disseminations, application tools such as FishStatJ, as well as uploading to the web page. Those are the tasks required regardless the location and types of the system (i.e. database applications, information sharing architectures, web locations, etc). The Secretariat has fulfilled those tasks up to this moment in collaboration with FIPS of FAO which offered its technical support under the following conditions: support limited to the initial stage of implementation, and no system will be developed specifically for RECOFI. The FIPS has made it clear that it could not maintain the same level of support in the future without charging RECOFI for the services provided.

22. The discussions in the various RECOFI meetings in the past indicated two possibilities regarding the physical location of Regional database and supporting working system including an information network; either to be established within the FAO system or to be established as an independently operating system located in and supported by one of Members. The advantages of the former option include a range of tools readily available as well as an assured quality control and continuous updates of such tools / applications and relatively low cost of maintenance by sharing the supporting resources with other similar requirements, and finally a neutral location. The advantages of the latter would be an enhanced commitment and ownership of the system by Members, with the understanding that it is essential for the Member which would commit to this task to prove its capacity of transparency, neutrality, and high-frequency open communications in the internet with long-term sustainability and commitment.

23. In addition, there is through the [iMarine platform](#)<sup>1</sup> an opportunity to move toward a web-based collaborative platform and handle in an integrated way the “many miscellaneous tasks” as reported by the Data Workshop (para18 of this document): this iMarine platform would enable the immediate creation of a RECOFI web-based scientific collaborative environment (called “VRE” in iMarine terminology, i.e. Virtual Research Environment). A VRE for RECOFI would offer to its users, under controlled access, a facility for sharing and consolidating a statistical RECOFI catch and effort database, as well as other structured data such as length composition, and documents or files. The VRE for RECOFI would require support for conducting quality control and consolidation with tools that would be also need to be adjusted to the RECOFI context. The VRE also includes social tools including forums, email alerts and VRE statistical products that can eventually be downloaded or published on a website. The VRE could be set-up in a very short time frame and at minimum costs for a trial period during years 2013-2014. The longer term availability of this service and its cost to RECOFI will depend upon the iMarine sustainability plan. This would be applicable for both options indicated in the previous paragraph, i.e. either within the FAO system or not.

24. Any of the options described above would require a similar cost for the initial development, regardless of which option is pursued. Therefore, in selecting a proper system for RECOFI, due consideration should be given to maintenance and long-term management components, in order to secure long-term security and sustainability which would be of key importance. It should be noted that the technical support provided by FAO cannot be extended to long-term maintenance unless RECOFI chooses to out-source this component to FAO.

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<sup>1</sup> See also iMarine/ICIS training material <http://www.i-marine.eu/Content/eTraining.aspx?id=47a8ca76-12c9-4e52-9f18-c01f495dd123> and <http://www.i-marine.eu/Content/eTraining.aspx?id=152e8695-5c72-4c69-b6f6-bdcf87776076>

## Appendix 1

**RECOMMENDATION RECOFI/6/2011/1  
ON MINIMUM DATA REPORTING IN THE RECOFI AREA**

The Regional Commission for Fisheries (RECOFI),

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

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

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

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

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

1. (a) Each Member shall take such measures as may be necessary to ensure the collection and submission of information required under the paragraph 2, 3 and 4 of this recommendation.  
  
(b) Nothing in this recommendation shall constrain a Member pursuing data collection and sharing them with the Commission for the purpose of improving management of fisheries and fishery resources in the RECOFI area beyond the requirements of this recommendation.
2. (a) Each Member operating with shrimp trawl fishery shall make available to the Commission the following information with respect to that fishery:
  - (i) opening and closing dates of the fishery;
  - (ii) number of vessels engaged in the fishery according to its own vessel type/ size categories (e.g. steel-hulled/speed boats/dhows);
  - (iii) annual average tow duration, annual average number of tows per day, and total number of days at sea, according to vessel type/size categories;
  - (iv) live-weight equivalent of annual catch of shrimp, swimming crab, cuttlefish, narrow-barred Spanish mackerel, emperors, groupers, sharks, rays, and other finfishes, taken by the fishery;
  - (v) annual amount of discards, and
  - (vi) species composition of by-catch and discards, if available.  
(b) If any by-catch reduction device (BRD) is used or other mitigation measure taken, each Member should advise the Commission of details of such BRD/mitigation measure used and submit the catch and effort for those vessels with mitigation measures separated from those vessels operating normally.
3. Each Member shall make available to the Commission the following information with respect to gillnets, wire-traps, and hooks-and-line fisheries, respectively:

- (a) annual effort in individual fisheries, in terms of “number of days at sea”, and if this is not possible, alternative effort with its brief description, and
- (b) live-weight equivalents of annual total catch, and of annual catches of narrow-barred Spanish mackerels, emperors, groupers, sharks and rays taken by individual gears with species identification of emperors and groupers to the extent possible, and amount of discards if available.
4. (a) Each Member shall make available to the Commission the following information with respect to narrow-barred Spanish mackerel *Scomberomorus commerson* taken in any fishery in the country:
- (i) catch in live-weight equivalent on a monthly basis to the extent possible, if not on an annual basis;
  - (ii) fork length composition of catch on a monthly basis to the extent possible, if not on an annual basis, either based on fishery monitoring or obtained from other sources, and
  - (iii) for operations targeting narrow-barred Spanish mackerel (e.g. kingfish fixed net, gillnet and hooks and line), monthly catch with fork length composition and effort by gear type, together with clear description of kinds of effort used, to the extent possible.
- (b) Each Member shall make available to the Commission any results obtained through surveys and research works relevant to narrow-barred Spanish mackerel, including fishery-dependent and fishery-independent stock indicators, biological parameters (e.g. growth rate, length frequency data obtained by projects, age-length relationship, reproductive information, natural mortality) and ecological information (e.g. distribution, feeding habitat, habitat preferences).
5. Each Member shall, to the extent practicable, make available to the Commission the following additional information:
- (a) shrimp species composition within the shrimp trawl catch, and
  - (b) species composition of discards.
6. Each Member shall submit to the Commission the information required under paragraphs 2, 3, 4 and 5 of this recommendation, and any modification to information reported previously, before the end of August of the following year. Each Member shall cooperate in exchanging historical information relevant to those described in this recommendation.
7. Each Member shall cooperate in sharing survey plans and protocols prior to their implementation, as well as results of such surveys upon their conclusion, to the relevant Members through the Commission.
8. The Commission shall collate, maintain and promptly disseminate to Members the information provided under paragraphs 2, 3, 4 and 5 of this recommendation. The Commission may, subject to the request from a Member who provided information, impose restrictions on access to the information by the public.
9. The Commission shall monitor and evaluate regularly the status of implementation of this recommendation.

## Annex 1

## List of key species supporting main reference fisheries in the RECOFI Area (revised)

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</i> spp.
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	Carcharhinidae





Catch of narrow-barred Spanish mackerel	Y	Y	Y	Y	Y	Y	Y	Y
Catch of emperors, groupers, sharks, and rays	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 *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

Coloured cells and letter „Y“ indicated the type of data that the Member committed to submit and actual submission, respectively. Green indicating those submitted during the preparation phase prior to 01 January 2012.



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

Coloured cells and letter „Y“ indicated the type of data that the Member committed to submit and actual submission, respectively. Green indicating those submitted during the preparation phase prior to 01 January 2012.

## iii) State of Kuwait

	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002>
<b>Shrimp Trawl</b>										
2-a-i	Opening/closing dates									
2-a-ii					Y	Y	Y	Y	Y	~2001
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*	~2001
2-a-iv					Y*	Y*	Y*	Y*	Y*	~2001
	Catch of shrimp									
	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

<b>Gillnets</b>										
3-a	Number of days at sea									
					Y*	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>									

<b>Wire-traps</b>										
3-a	Number of days at sea									
					Y*	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>									

<b>Hook-and-line</b>										
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

Coloured cells and letter „Y“ indicated the type of data that the Member committed to submit and actual submission, respectively. Green indicating those submitted during the preparation phase prior to 01 January 2012.

## iv) Sultanate of Oman

	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002>
<b>Shrimp Trawl</b>										
2-a-i	Opening/closing dates									
2-a-ii	Number of vessels by types and size categories									
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									
2-a-iv	Catch of shrimp									
	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									
<b>Gillnets</b>										
3-a		Y	Y							~1985
	Alternative annual efforts									
3-b		Y	Y							~1985
	Total catch									
		Y	Y							~1985
	Catch of narrow-barred Spanish mackerel									
		Y	Y							~1985
	Catch of emperors, groupers, sharks, and rays									
		Y	Y							~1985
	Amount of discards									
5-b	<i>Species composition of discards</i>									
<b>Wire-traps</b>										
3-a		Y	Y							~1985
	Alternative annual efforts									
3-b		Y	Y							~1985
	Total catch									
		Y	Y							~1985
	Catch of narrow-barred Spanish mackerel									
		Y	Y							~1985
	Catch of emperors, groupers, sharks, and rays									
		Y	Y							~1985
	Amount of discards									
5-b	<i>Species composition of discards</i>									
<b>Hook-and-line</b>										
3-a		Y	Y							~1985
	Alternative annual efforts									
3-b		Y	Y							~1985
	Total catch									
		Y	Y							~1985
	Catch of narrow-barred Spanish mackerel									
		Y	Y							~1985
	Catch of emperors, groupers, sharks, and rays									
		Y	Y							~1985
	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

Coloured cells and letter „Y“ indicated the type of data that the Member committed to submit and actual submission, respectively. Green indicating those submitted during the preparation phase prior to 01 January 2012.



## v) State of Qatar

	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002>
<b>Shrimp Trawl</b>										
2-a-i	Opening/closing dates									
2-a-ii	Number of vessels by types and size categories									
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									
2-a-iv	Catch of shrimp									
	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									

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

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

<b>Hook-and-line</b>										
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

Coloured cells and letter „Y“ indicated the type of data that the Member committed to submit and actual submission, respectively. Green indicating those submitted during the preparation phase prior to 01 January 2012.



5-b *Species composition of discards***Narrow-barred Spanish mackerel**

4-a-i	Annual catch	Y	Y
	Monthly catch	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		

Coloured cells and letter „Y“ indicated the type of data that the Member committed to submit and actual submission, respectively. Green indicating those submitted during the preparation phase prior to 01 January 2012.