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Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks
New York, 23-27 May 2016

Report submitted to the resumed Review Conference in accordance with paragraph 41 of General Assembly resolution 69/109 to assist it in discharging its mandate under article 36 (2) of the Agreement

Report of the Secretary-General

Summary

The present report has been prepared in response to the request made to the Secretary-General, in paragraph 41 of General Assembly resolution 69/109, to submit to the resumed Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks an updated report, prepared in cooperation with the Food and Agriculture Organization of the United Nations, to assist the Review Conference in discharging its mandate under article 36 (2) of the Agreement. It is also based on information provided by States and regional fisheries management organizations and arrangements and other related bodies in response to a questionnaire circulated in March 2015. It provides an update of information contained in the reports of the Secretary-General to the Review Conference in 2006 (A/CONF.210/2006/1) and 2010 (A/CONF.210/2010/1).

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Contents

Abbreviations

APFIC	Asia-Pacific Fishery Commission
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
FAO	Food and Agriculture Organization of the United Nations
FFA	Pacific Islands Forum Fisheries Agency
GFCM	General Fisheries Commission for the Mediterranean
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICES	International Council for the Exploration of the Sea
IMO	International Maritime Organization
IOTC	Indian Ocean Tuna Commission
IPHC	International Pacific Halibut Commission
NAFO	Northwest Atlantic Fisheries Organization
NASCO	North Atlantic Salmon Conservation Organization
NEAFC	North-East Atlantic Fisheries Commission
NPAFC	North Pacific Anadromous Fish Commission
NPFC	North Pacific Fisheries Commission
OSPESCA	Central American Fisheries and Aquaculture Organization
PICES	North Pacific Marine Science Organization
RECOFI	Regional Commission for Fisheries
SEAFO	South-East Atlantic Fisheries Organization
SPRFMO	South Pacific Regional Fisheries Management Organization
WCPFC	Western and Central Pacific Fisheries Commission
WECAFC	Western Central Atlantic Fishery Commission
WTO	World Trade Organization

I. Introduction

1. Pursuant to article 36 of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (the Agreement), the Review Conference was convened from 22 to 26 May 2006 (see A/CONF.210/2006/15). It was then resumed from 24 to 28 May 2010 (see A/CONF.210/2010/7). Following the tenth round of informal consultations of States parties to the Agreement, in March 2014, the General Assembly, in its resolution 70/75, requested the Secretary-General to resume the Review Conference again, from 23 to 27 May 2016. The present report is submitted pursuant to the request contained in Assembly resolution 69/109 with a view to assisting the Review Conference in discharging its mandate.

2. The resumption of the Review Conference comes at a pivotal moment for global fisheries. The first global integrated marine assessment[1] painted a disturbing picture of the current state of the marine environment, including the state of the world's fisheries. It indicated that the world's ocean was facing major pressures simultaneously with such great impacts that the limits of its carrying capacity were being (or, in some cases, had been) reached. The sustainability and productivity of global capture fisheries continued to suffer the impacts of overfishing and, in some cases, poor management, as the demand for fish and fish products continued to rise, in particular in the light of their important contribution to food security and nutrition. Moreover, fisheries were increasingly being affected by ecosystem degradation and biodiversity loss resulting from a combination of stressors, including climate change, ocean acidification, pollution and destructive fishing practices.

3. Several important developments have signalled heightened awareness of the magnitude of the threats currently faced by the oceans and the need to tackle them, taking into account the critical contribution of the oceans to sustainable development.[2] In the 2030 Agenda for Sustainable Development, adopted by the General Assembly in its resolution 70/1, the international community committed itself to achieving the 17 Sustainable Development Goals, including Goal 14, "Conserve and sustainably use the oceans, seas and marine resources for sustainable development". The Goal sets important targets regarding the conservation and sustainable use of marine living resources, which will depend in great part on the implementation of the Agreement. The conservation and sustainable use of highly migratory fish stocks and straddling fish stocks can also contribute tangibly to the achievement of the other Goals, including those relating to food security (see A/70/74, para. 34). The 2030 Agenda built on, among others, the vision set out in "The future we want", the outcome document of the United Nations Conference on Sustainable Development (resolution 66/288, annex), and the SIDS Accelerated Modalities of Action (SAMOA) Pathway (Samoa Pathway) (resolution 69/15, annex), which also included significant commitments in relation to sustainable fisheries.

[1] See www.un.org/depts/los/global_reporting/WOA_RegProcess.htm.

[2] Owing to word limitations, it is not possible to deal with these and other important developments in detail. Additional information may be found in, among others, the reports of the Secretary-General on oceans and the law of the sea and sustainable fisheries, available from www.un.org/Depts/los/index.htm.

4. In other developments, the General Assembly, through its resolutions on oceans and the law of the sea and sustainable fisheries, has continued to develop the policy framework for the conservation and management of marine living resources. In 2015, the Assembly, by its resolution 69/292, took the decision to develop an international legally binding instrument under the United Nations Convention on the Law of the Sea (the Convention) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. Oceans also featured in the discussions surrounding the negotiation of the Paris Agreement under the United Nations Framework Convention on Climate Change.

5. The Review Conference presents an important opportunity for States parties to the Agreement, together with non-parties, intergovernmental organizations, the fishing industry, civil society and other stakeholders, to contribute to the continuing efforts to improve the state of the oceans and their resources. The Review Conference is mandated under article 36 of the Agreement to assess the effectiveness of the Agreement in securing the conservation and management of straddling fish stocks and highly migratory fish stocks, by reviewing and assessing the adequacy of its provisions and, if necessary, proposing means of strengthening the substance and methods of implementation of those provisions in order better to address any continuing problems in the conservation and management of those stocks. In doing so, the participants will have an opportunity to build on the policy developments reflected in the annual General Assembly resolutions on sustainable fisheries. In that context, the Assembly has repeatedly called upon States that have not done so to become parties to the Agreement in order to achieve the goal of universal participation. Since 2010, however, only 5 States (Bangladesh, Croatia, Morocco, the Philippines and Saint Vincent and the Grenadines) have become parties, raising the total number to 82, including the European Union.

6. The present report, prepared in cooperation with FAO and with the assistance of an expert consultant hired to provide information and analysis on relevant technical and scientific issues, is an update to the two previous reports of the Secretary-General to the Review Conference, in 2006 (A/CONF.210/2006/1) and 2010 (A/CONF.210/2010/1). The participants in the Review Conference will also benefit from the information contained in other reports of the Secretary-General on oceans and the law of the sea and sustainable fisheries submitted to the General Assembly under the agenda item entitled “Oceans and the law of the sea”.[3]

7. Following the approach taken in the two previous reports, the present report is based on information provided in response to a questionnaire circulated by the Secretariat in March 2015. Responses were received from 12 States parties, including the European Union,[4] and four non-parties,[5] in addition to the members of FFA. Reponses were also received from 17 regional fisheries management organizations and arrangements and other related organizations,[6] in addition to FAO.

[3] Available from www.un.org/Depts/los/general_assembly/general_assembly_reports.htm.

[4] Australia, Brazil, Canada, Costa Rica, European Union, Japan, Mauritius, Mozambique, New Zealand, Norway, Philippines, United States of America.

[5] Pakistan, Qatar, Togo, Zambia.

[6] APFIC, CCAMLR, CCSBT, GFCM, ICCAT, IPHC, NAFO, NASCO, NEAFC, NPAFC, NPFC, OSPESCA, PICES, SEAFO, SPRFMO, WCPFC, WECAFC.

Two non-governmental organizations provided contributions.[7] The Secretary-General expresses his appreciation for all the contributions.

II. Overview of the status and trends of straddling fish stocks and highly migratory fish stocks, discrete high seas stocks and non-target, associated and dependent species

A. Introduction

8. The present section provides an update on trends in the status of highly migratory fish stocks and straddling fish stocks, discrete high seas stocks and non-target, associated and dependent species, highlighting trends since 2006 and 2010. It is based on data provided by the FAO overview of the subject.[8] More detailed information on the status of specific stocks reported in 2006, 2010 and 2016 is summarized in the annexes to the present report: annex I in respect of highly migratory fish stocks and annex II in respect of straddling fish stocks.

9. According to FAO, its overview was based on the best available scientific information, but data limitations continued to exist and the state of exploitation of some stocks might be unknown, uncertain to fall within the designated classification or considered to vary between classifications depending on the area.

10. In evaluating the status of stock and trends, the present report uses the 2011 classification scheme of FAO,[9] under which the six previous categories were aggregated into three levels:

(a) "Overexploited" refers to stocks that are being exploited above an optimal yield/effort level that is believed to be sustainable in the long term; depleted; or recovering from a depletion or collapse (previously overexploited, recovering and depleted);

(b) "Fully exploited" refers to stocks that are exploited at or close to an optimal yield/effort level, with no expected room for further expansion;

(c) "Non-fully exploited" includes stocks that are exploited by undeveloped or new fishery, with a significant potential for expansion in total production; or with a low fishing effort, with some limited potential for expansion (previously moderately exploited and underexploited).[10]

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[7] In accordance with the wish expressed during the eleventh round of informal consultations of States parties to the Agreement in March 2015, those contributions (from Greenpeace and Pew Charitable Trusts) will be circulated to States electronically by the Chair of that meeting, but have not been incorporated into the present report.

[8] Available from www.un.org/Depts/los/2016_FAO_Overview.pdf. It was based on information from regional fishery bodies, including regional fisheries management organizations and arrangements, national authorities and FAO sources. The most recent complete year of data is 2013.

[9] FAO, *Review of the State of World Marine Fishery Resources*, FAO Fisheries and Aquaculture Technical Paper No. 569 (Rome, 2011). Available from www.fao.org/docrep/015/i2389e/i2389e.pdf.

[10] It should be noted that previous reports utilized the six-category classification system previously used by FAO. Where possible, references to the previous status of stocks have been updated into the new classification scheme.

11. The species and stock terminology used herein corresponds to that used by FAO[11] and the terminology of the 2006 and 2010 reports (A/CONF.210/2006/1, paras. 12-15, and A/CONF.210/2010/1, para. 9).

12. In addition, while the species (or species group) statistical area combinations reviewed are referred to as stocks, in many cases they are a collection of several stocks from a management or biological perspective. Information on associated species and the availability of information on the biological characteristics and geographic distribution of the species remain unchanged from the 2006 and 2010 reports (A/CONF.210/2006/1, paras. 118-134, and A/CONF.210/2010/1, paras. 10-12).

B. Highly migratory fish stocks[12]

1. Background

13. Highly migratory fish species include tuna and tuna-like species, oceanic sharks, pomfrets, sauries and dolphinfish. Biological information on tuna and tuna-like species, their geographical distribution and an historic account of the development of tuna fisheries appear in the 2006 report (A/CONF.210/2006/1, paras. 19-21 and 30-35).

14. The available global database does not distinguish between occurrences of the species or catches in areas under national jurisdiction and on the high seas, and they are addressed accordingly.[13]

15. According to FAO statistics, in 2013, catches of tuna and tuna-like species included in annex I to the Convention accounted for about 6 million tons, an increase of 1 million tons since 2003. Those species continued to constitute nearly 80 per cent of the total reported catches of all such species. Skipjack tuna and yellowfin tuna accounted for more than 60 per cent of the catch in 2013. A substantial portion of this was caught within exclusive economic zones.

2. Trends in the status of the stocks

FAO overview

16. Since the previous assessment, in 2010, and on the basis of the FAO statistics presented in annex I to the present report, it can be concluded that there has been a decline in the overall status of highly migratory fish stocks, notwithstanding improvements in the status of some stocks. Trends in exploitation of individual stocks since the previous assessment (see A/CONF.210/2010/1, para. 23) show that, for 69 per cent of the stocks there was no change, for 20 per cent there was a deterioration and for 11 per cent there were improvements. Information was not known, and no assessment was provided, for about one quarter of the stocks. Since the previous assessment, the percentage of non-fully exploited tuna and tuna-like species stocks has decreased from 17 to 14 per cent, the percentage of fully

[11] FAO, *World Review of Highly Migratory Species and Straddling Stocks*, FAO Fisheries Technical Paper, No. 337 (Rome, 1994). Available from www.fao.org/docrep/003/t3740e/T3740E00.htm.

[12] The use of the term “highly migratory fish stocks” remains the same as in the 2006 and 2010 reports.

[13] See the FAO global capture production database, available from www.fao.org/fishery/statistics/software/fishstatj/en.

exploited stocks has decreased from 53 to 49 per cent and the percentage of overexploited stocks has increased from 30 to 37 per cent. There are probably few opportunities to increase the exploitation of tuna and tuna-like species, except in some areas of the Pacific and Indian oceans, where increases in catches of skipjack tuna may be sustainable.

17. The FAO overview indicated that information was not known for a range of species, including Mediterranean Sea albacore and Indian Ocean billfish, and therefore no assessment was provided. As to shark species, no comprehensive assessment of their exploitation was possible because of the paucity of information, which is available only for some stocks of seven species. In particular, no assessment could be provided for the following shark species on a global basis: wing head, scalloped bonnethead, whitefin hammerhead, scoophead, great hammerhead, bonnethead, smalleye hammerhead, smooth hammerhead and great white (see also paras. 19-22). Information was known for the shortfin mako shark only in the north and south Atlantic and eastern Pacific oceans, and needed for the longfin mako shark in the western Atlantic and possibly the central Pacific oceans, as well as for the porbeagle shark in the Southern Ocean.

18. However, about 60 per cent of shark species for which information is available continue to be potentially overexploited or depleted. In the absence of stock-specific information, shark populations continue to be considered at least fully exploited.

Species protected under international instruments

19. As indicated in annex I to the present report, some species of highly migratory fish stocks are protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Convention on the Conservation of Migratory Species of Wild Animals and/or the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention).

20. Appendix II to the Convention on International Trade in Endangered Species of Wild Fauna and Flora includes species that, although not necessarily now threatened with extinction, may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival. It also includes species that resemble other listed species and need to be regulated in order to effectively control the trade in those other listed species. Listed marine species include the following shark species: great white, whitetip, scalloped hammerhead (with great hammerhead and the smooth hammerhead included for look-alike reasons), basking, porbeagle and whale.

21. Appendix II to the Convention on Migratory Species includes migratory species that have an unfavourable conservation state and that require international agreements for their conservation and management, as well as those that would significantly benefit from international cooperation. Listed species include the great white shark, three species of thresher shark, the whale shark, the silky shark, the shortfin and longfin mako shark and the porbeagle shark.

22. Annex II to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean to the Barcelona Convention deals with endangered or threatened species and lists the great white shark and the basking shark.[14]

C. Selected straddling fish stocks

1. Background

23. The main straddling stock species are generally well studied compared with several highly migratory species, in particular the non-tuna species. Nevertheless, it was not possible to ascertain the status of fish stocks in some areas because of lack of information and/or insignificant fisheries outside exclusive economic zones. Those areas included the western central Pacific, the eastern and western central Atlantic and the Indian oceans.

2. Trends in the status of the stocks

24. Since the previous assessment, in 2010, and on the basis of the FAO statistics provided in annex II to the present report, it can be concluded that there has been a decline in the overall status of straddling fish stocks, notwithstanding improvements in the status of some stocks. The percentage of non-fully exploited stocks decreased from 21 to 16 per cent, the percentage of fully exploited stocks increased from 41 to 44 per cent and the percentage of overexploited stocks increased from 38 to 40 per cent. Trends in the exploitation of selected stocks included in the FAO overview since the previous assessment show that the status of 59 per cent of the stocks remained unchanged, 16 per cent showed improvements and 25 per cent showed some deterioration. In addition, the status of approximately half of the stocks described in the overview was considered unknown owing to lack of sufficient information.

25. As noted above, information was not known for a range of areas and species, and therefore no assessment was provided. For the eastern central and western central Atlantic Ocean, the FAO overview referred, respectively, to 18 and 9 relevant species for which information was not available. Further information was needed for the grenadier in the north-west Atlantic, the Southern Ocean sevenstar flying squid and Southern Ocean crab and for several species in the south-west and south-east Atlantic Ocean.

D. Other high seas fish stocks

26. Most discrete high seas fish stocks comprise deep-water species, but several stocks may exist for pelagic species. The information contained in the FAO overview regarding those stocks remains substantially unchanged from that provided by FAO for the 2010 report (A/CONF.210/2010/1, paras. 68-70). Relatively little continues to be known about many of the species and most of the fisheries (see A/CONF.210/2006/1, paras. 104-115).

[14] For that instrument, “endangered species” means any species that is in danger of extinction throughout all or part of its range and “threatened species” means any species that is likely to become extinct within the foreseeable future throughout all or part of its range and whose survival is unlikely if the factors causing numerical decline or habitat degradation continue to operate.

E. Associated and dependent species

27. Associated and dependent species are caught and/or impacted in fisheries for straddling fish stocks, highly migratory fish stocks and other high seas fish stocks. Associated species are considered to be species impacted by fishing activities that are not part of the landed catch. Fisheries for straddling fish stocks, highly migratory fish stocks and other high seas fish stocks impact associated species as a result of discards, physical contact of fishing gear with habitats and organisms that are not caught, and indirect processes. There has been no comprehensive global review of the impacts of fisheries on associated species since the 2006 report (ibid., paras. 118-134).

28. The information on discards of associated species at the global level contained in the 2006 and 2010 reports (A/CONF.210/2006/1, paras. 120-128, and A/CONF.210/2010/1, paras. 72-74) remains generally unchanged.

F. Straddling fish stocks, highly migratory fish stocks and other high seas fish stocks for which no measures have been adopted by regional fisheries management organizations and arrangements

29. Fisheries for tuna and tuna-like highly migratory species are all under some form of management. However, the global operation of some fishing fleets targeting such species and the global nature of associated markets make it more difficult for regional fisheries management organizations and arrangements to manage those fisheries compared with fisheries that are less global.

30. The management of fisheries for oceanic sharks and other highly migratory species continues to be incomplete and uneven (see A/CONF.210/2010/1, para. 77). It is noted in an FAO review published in 2012[15] that, overall, the reporting of shark catches to FAO has improved in the past decade and regional fisheries management organizations and arrangements have adopted a range of measures, but data collection and research are lacking in many regions.

31. In general, with the exception of a few species producing large catches, knowledge of the biology and state of exploitation of highly migratory species, such as billfish and sailfish, remains scarce. A more systematic approach to the management of pomfrets, sauries and dolphinfish is generally necessary before the fisheries exploiting them can be considered to be properly managed.

32. Most fisheries for straddling fish stocks are covered or becoming covered by regional fisheries management organizations and arrangements. The situation is more variable for fisheries for other high seas fish stocks. The management of high seas deep-sea fisheries is addressed by several regional fisheries management organizations and arrangements. Additional organizations and arrangements or other cooperation arrangements are currently under consideration in regions in which coverage gaps previously existed.

[15] FAO, *Review of the Implementation of the International Plan of Action for the Conservation and Management of Sharks*, FAO Fisheries and Aquaculture Circular, No. 1076 (Rome, 2012). Available from www.fao.org/fi/oldsite/eims_search/1_dett.asp?calling=simple_s_result&lang=en&pub_id=308384.

G. Conclusions

33. The overall status of highly migratory fish stocks and straddling fish stocks has not improved since 2006 and 2010. The status of a significant number of stocks has deteriorated even as it has improved for a smaller number of stocks. An analysis of the causes of the fluctuations in the status of specific stocks, in particular those that have recovered from overexploitation, may hold lessons for the identification of successful management approaches.

34. One of the main impediments to assessing the state of exploitation of highly migratory species, straddling stocks and other high seas fish stocks continues to be the considerable limitations in fisheries and biological data. Challenges remain, as noted by the Secretary-General in 2010. The quality of future evaluations of performance under the Agreement continues to hinge on substantial improvements in the availability of data on high seas stocks and fisheries.

35. Information gaps for some species or stocks and for some areas can have a negative impact on the effective development and implementation of science-based conservation and management measures. In such cases, the application of the precautionary approach, as set out in article 6 of the Agreement, is particularly relevant.

36. The situation continues to reinforce the need for countries fishing on the high seas to cooperate directly or through regional fisheries management organizations and arrangements to implement effective measures to sustainably manage fisheries, conserve stocks already overfished and monitor high seas fisheries.

37. In the light of the increased pressures expected to be faced by fish stocks in the near future, including from stressors such as climate change, ocean acidification, marine pollution and continued overfishing, it is important to improve the resilience of fish stocks and the ecosystems of which they form an integral part, including through the application of precautionary and ecosystems approaches to fisheries.

III. Review of the implementation of the recommendations of the Review Conference

38. The present section provides information on the implementation of the recommendations of the Review Conference made in 2006 and 2010. It is based primarily on information received from States and regional fisheries management organizations and arrangements in response to the questionnaire referred to in paragraph 7 above, supplemented by information drawn from various sources, as referenced herein. It should be noted that the limited number of contributions to the report, in particular from developing States, renders it difficult to draw firm conclusions from the information received. Information regarding measures taken by non-parties to the Agreement was also limited. Moreover, the responses received to the questionnaire also tended to focus on areas in which progress had been achieved rather than on implementation gaps.

39. Information was also received regarding the de facto application of the recommendations of the Review Conference to stocks not covered by the

Agreement, such as anadromous stocks[16] and transboundary freshwater stocks.[17] While not extensively covered below, that information shows that some procedures, concepts and principles recommended in relation to the implementation of the Agreement, such as the incorporation of precautionary and ecosystems approaches, the use of performance reviews and measures to strengthen compliance and enforcement, may have a broader impact.

40. For ease of reference, the actions of States and regional fisheries management organizations and arrangements to implement the recommendations and major developments relevant to the implementation of the Agreement are divided into four sections, corresponding to the categories of the recommendations. They are conservation and management of stocks; mechanisms for international cooperation and non-members; monitoring, control and surveillance, and compliance and enforcement; and developing States and non-parties to the Agreement.

A. Conservation and management of stocks

41. The objective of the Agreement is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through the effective implementation of the relevant provisions of the Convention. In 2006 and 2010, the Review Conference agreed on recommendations concerning the conservation and management of stocks, covering issues such as the application of precautionary and ecosystem approaches; environmental factors affecting marine ecosystems, including the adverse impacts of climate change and ocean acidification; the achievement of compatible measures; the development of area-based management tools; the reduction of fishing capacity; the elimination of subsidies contributing to illegal, unreported and unregulated fishing; overfishing and overcapacity; data collection and sharing of information; the conservation and management of sharks; conservation and management measures for deep-sea fisheries; the determination of reference points and rebuilding and recovery strategies; the science-policy interface; and by-catch management, including action addressing lost or abandoned gear and discards.[18]

1. Measures taken at the national and international levels

42. Subsequent to the Review Conference in 2006 and 2010, which addressed in particular the adoption and implementation of measures for the conservation and management of straddling fish stocks and highly migratory fish stocks, important related commitments were reflected in, among others, “The future we want”, under several targets of Sustainable Development Goal 14 and in General Assembly resolutions on sustainable fisheries.

43. Most States reported on action taken to adopt and fully implement effective conservation and management measures,[19] including the adoption of new or revised

[16] NASCO, NPAFC.
[17] Zambia.
[18] A/CONF.210/2006/15, annex, paras. 18 (a) to 18 (k), 19 and 20; A/CONF.210/2010/7, annex, paras. I (a) to I (o).
[19] Australia, Brazil, Canada, Costa Rica, European Union, FFA members, Japan, Mauritius, Mozambique, New Zealand, Norway, Pakistan, Qatar, United States.

national legislation, policies and plans.[20] Similarly, regional fisheries management organizations and arrangements with the competence to manage those stocks reported on measures taken to improve the status of straddling fish stocks and highly migratory fish stocks.[21] The important role of scientific advice from scientific organizations in the process was highlighted.

44. Notwithstanding the adoption of strengthened commitments to improve the status of overexploited or depleted stocks and the taking of a wide range of conservation and management measures since 2010, the status of straddling fish stocks and highly migratory fish stocks has not generally improved, even though some specific fisheries have shown improvement. A large percentage of stocks covered under the Agreement remains overexploited, while an ever smaller percentage is underexploited.

Application of precautionary and ecosystem approaches

45. The Review Conference emphasized the need for the implementation of precautionary and ecosystem approaches. Subsequently, States made important commitments in that regard, including in "The future we want", the 2030 Agenda for Sustainable Development and General Assembly resolutions on sustainable fisheries.

46. Most States reported on progress in incorporating the approaches into fisheries management, including through legislation and policies and conservation and management measures.[22] The role of regional fisheries management organizations and arrangements was highlighted in that regard.[23] It was indicated that the approaches were used to protect species, such as marine turtles, seabirds and sharks, including through national plans of action.[24] Also highlighted was the incorporation of both approaches into various management tools, including marine protected areas, benthic protection areas[25] and the regulation of bottom fishing gear.[26]

47. Some States indicated how they implemented the precautionary approach through harvest control rules, applicable rules when reference points were breached and stock rebuilding strategies.[27]

48. Several regional fisheries management organizations and arrangements reported that they had incorporated the approaches into recently adopted or amended constitutive instruments,[28] or through policy decisions.[29] For example, the amended Convention on Future Multilateral Cooperation in North-East Atlantic Fisheries, which entered into force in 2013, requires the application of the precautionary approach and consideration of the impact of fisheries on other species

[20] Canada, European Union, New Zealand, Philippines, Qatar, United States.

[21] CCAMLR, CCSBT, IATTC, ICCAT, NAFO, NEAFC, NPFC, SPRFMO, WCPFC. Other regional fisheries management organizations, including NASCO and NPAFC, also noted their action concerning the conservation and management of fish stocks covered by them, consistent with the Agreement and the recommendations of the Review Conference.

[22] Australia, Brazil, Canada, Costa Rica, European Union, FFA members, Japan, Mozambique, New Zealand, Norway, Pakistan, Philippines, Qatar, United States.

[23] Mauritius, New Zealand, United States.

[24] Japan, Mauritius, New Zealand.

[25] Japan, New Zealand.

[26] Qatar.

[27] Australia, New Zealand.

[28] GFCM, IATTC, NAFO, NEAFC, NPFC, SPRFMO.

[29] In 2015, ICCAT decided to apply the ecosystem and precautionary approaches.

and marine ecosystems. In that regard, the importance of collecting data regarding the effects of fishing on dependent species was emphasized.[30]

49. Several regional fisheries management organizations and arrangements also indicated that they had reflected the approaches in their management decisions, including in conservation and management measures.[31] For example, WCPFC and IATTC reported on their management strategy evaluation process. The use of precautionary reference points was noted by WCPFC, NAFO, SPRFMO and CCAMLR. NAFO established a working group on risk-based management strategies in 2014.[32] NEAFC noted that advice received from ICES was based on, among other things, the precautionary approach, including assessments of draft long-term management plans. ICCAT pointed to its use of the Kobe II strategy matrix (which provides alternative risk-based options for meeting management targets)[33] and the development of harvest control rules, and noted the work of the Management Strategy Evaluation Working Group involving all tuna regional fisheries management organizations.[34]

50. In 2015, NAFO adopted terms of reference for a technical working group to review its implementation of the precautionary approach.[35] CCSBT reported that, in addition to its inherently precautionary management procedure, it had been conducting risk assessments for seabirds and cooperating on an assessment of southern hemisphere porbeagle shark stocks.

51. To implement the ecosystem approach, NAFO has developed a comprehensive ecosystem road map applying a three-tier approach to ecosystem management.[36]

52. Several regional fisheries management organizations and arrangements pointed to the application of the precautionary and ecosystem approaches in addressing the impacts of bottom fisheries on vulnerable marine ecosystems, including the closure of areas to protect such ecosystems.[37]

53. FAO finalized the ecosystem approach to fisheries toolbox in 2012[38] and has projects aimed at assisting States in introducing principles and methodologies for the implementation of the approach. It has also supported regional fisheries bodies to formally adopt the approach and its integrated principles as part of their mandate.

54. In the light of the foregoing, it appears that progress has been made in strengthening the implementation of the precautionary and ecosystem approaches. With regard to the specific issues addressed by the Review Conference in 2010 in relation to the ecosystem approach, however, it was not possible to assess progress in the application of risk assessment tools or measures for commercially traded by-catch owing to insufficient information. Challenges relating to the impact of

[30] CCAMLR.

[31] CCAMLR, IATTC, ICCAT, NAFO, SPRFMO, WCPFC. See also IOTC resolutions 12/01, 12/03, 12/04 and 13/04; IPHC, OSPESCA, WECAFC.

[32] Canada.

[33] See www.tuna-org.org/.

[34] See http://rscloud.iccat.int/mse/mse.html.

[35] See http://archive.nafo.int/open/fc/2015/fcdoc15-23.pdf.

[36] See http://archive.nafo.int/open/fc-sc/2015/fc-scdoc15-03.pdf.

[37] CCAMLR, NAFO, NEAFC, NPFC, SEAFO. WECAFC also noted the proposed closure of vulnerable marine ecosystems in 2016. See also the subsections on deep-sea fisheries and area-based management tools.

[38] See www.fao.org/fishery/eaf-net/en.

unregulated fisheries on marine ecosystems have been partially addressed by the establishment of new regional fisheries management organizations and arrangements (see paras. 199-205) and strengthened control of States over their nationals (see paras. 243-245).

Environmental factors affecting marine ecosystems, including the adverse impacts of climate change and ocean acidification

55. Environmental factors affecting marine ecosystems, including the adverse impacts of climate change and ocean acidification, were a topic of focus at the Review Conference in 2010. Subsequently, States made important commitments in that regard, including in "The future we want", the 2030 Agenda for Sustainable Development and General Assembly resolutions on sustainable fisheries. The first global integrated marine assessment made an important contribution to understanding of these environmental factors[39] (see also para. 2). In its summary, the following was noted:

> As seawater temperatures increase, the distribution of many fish stocks and the fisheries that depend upon them is shifting.… The result is changes in ecosystems occurring at various rates … Research on those effects is scattered, with diverse results, but as ocean climate continues to change, those considerations are of increasing concern for food production. Greater uncertainty for fisheries results in social, economic and food security impacts, complicating sustainable management.[40]

56. Several States and regional fisheries management organizations and arrangements and related bodies reported on efforts to study and address environmental factors,[41] including specific projects and programmes relating to ecosystem approaches,[42] climate change[43] and ocean acidification.[44] For example, WCPFC is developing a spatial ecosystem and population dynamics model and general guidelines on adaptive management and monitoring of highly migratory species in relation to climate change. PICES reported on its scientific programme designed to understand how marine ecosystems in the north Pacific responded to climate change and human activities, to forecast ecosystem status and to communicate new insights to a range of stakeholders.[45]

57. At the Nineteenth North Atlantic Fisheries Ministers Conference, held in 2014, the participants called for coordinated efforts in research and monitoring to better understand and respond to changes in the marine environment and stressed the need for cooperation between relevant stakeholders.[46]

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[39] See www.un.org/Depts/los/global_reporting/global_reporting.htm. For additional information on the effects of climate change on the oceans and ocean acidification, see A/69/71/Add.1, paras. 101-104.

[40] A/70/112, para. 62.

[41] Brazil, Canada, European Union, FFA members, Japan, Mozambique, New Zealand, Norway, Philippines, Qatar, Togo, United States; CCAMLR, GFCM, IATTC, ICCAT, NAFO, PICES, SPRFMO, WCPFC, WECAFC.

[42] Qatar.

[43] Canada, Japan, Mozambique, Norway, Philippines.

[44] New Zealand, Norway, United States.

[45] See www.pices.int/members/scientific_programs/FUTURE/FUTURE-main.aspx.

[46] Canada.

58. Some States also reported on the consideration of environmental factors in establishing conservation and management measures for straddling fish stocks and highly migratory fish stocks.[47] It was, however, noted that a lack of resources prevented effective action in that regard.[48] CCAMLR indicated that it was using a precautionary approach to management to take into account uncertainties, including those associated with climate change.

59. In view of the foregoing, it appears that progress has been made by several States and regional fisheries management organizations and arrangements in establishing projects and carrying out programmes relating to ecosystem approaches, climate change and ocean acidification. Cooperation among States has also strengthened in that regard.

60. It is, however, unclear to which extent environmental factors are being taken into consideration in the establishment of conservation and management measures. A lack of resources was highlighted as an impediment to the implementation of the recommendation of the Review Conference in that regard.

Achievement of compatible measures

61. One of the cornerstone features of the Agreement, the compatibility of measures, was addressed by the Review Conference in 2006 and 2010. The requirement for compatible measures is aimed at ensuring that conservation and management measures adopted within, and those adopted beyond, areas under national jurisdiction for the same stock are not undermined by differences in approaches.

62. States underlined efforts undertaken to ensure the compatibility of measures on the high seas and in areas under national jurisdiction,[49] including through regional fisheries management organizations and arrangements.[50] In that regard, the importance of sharing data with such organizations and arrangements, and with FAO, was emphasized.[51] Some States indicated that fishing agreements between high seas fishing States and coastal States or among coastal States also played a role.[52]

63. In addition, most regional fisheries management organizations and arrangements addressed the requirement for compatibility of measures.[53] Several such organizations have included the requirement in their constitutive instruments.[54] Some examples of approaches to achieving the compatibility of measures included the complementing measures taken by Canada and NAFO for the protection of vulnerable marine ecosystems;[55] the consent given by Chile for SPRFMO to establish a total allowable catch for jack mackerel throughout the resource's range,

[47] Australia, New Zealand, Norway.
[48] Costa Rica.
[49] Australia, Canada, Costa Rica, European Union, FFA members, Japan, Mauritius, New Zealand, Norway, Philippines, United States.
[50] Australia, Canada, Costa Rica, European Union, FFA members, New Zealand, Norway, United States.
[51] New Zealand.
[52] European Union, Mauritius.
[53] CCSBT, GFCM, IATTC, NAFO, NEAFC, NPFC, SPRFMO, WCPFC. In addition, States reported on the contribution of ICCAT in this regard.
[54] For example, NAFO, NPFC, SPRFMO, WCPFC.
[55] Canada.

including in areas under its jurisdiction;[56] the consideration by SEAFO of the Namibian assessment for orange roughy in setting the total allowable catch;[57] and how the consideration by WCPFC of conservation and management measures took into account measures agreed upon and implemented in Pacific island countries. NEAFC indicated that it achieved compatibility either by basing measures on agreements reached by relevant coastal States or by adopting measures applicable both to exclusive economic zones and the high seas.

64. Although some progress appears to have been made, the input received did not allow for an assessment of the extent to which compatible measures had been achieved in accordance with article 7 of the Agreement, and how widespread the practice has become. Some performance reviews of regional fisheries management organizations and arrangements have recommended mechanisms to strengthen the exchange of data and other information to support the development of compatible measures.[58]

Development of area-based management tools

65. The development of area-based management tools was addressed in 2006. Both "The future we want" and the 2030 Agenda for Sustainable Development, as well as General Assembly resolutions on oceans and the law of the sea, contain important commitments on the issue.

66. Most States reported on action to develop area-based management tools,[59] including marine protected areas, marine reserves, no-take zones and benthic protection areas,[60] as well as large ocean management areas.[61] Area closures for fisheries have been established for various purposes, including the protection of spawning areas, benthic habitats, coral and sponges, juveniles, biodiversity, vulnerable marine ecosystems, endangered species, fish stocks below a certain size and recovering stocks. Zoning by subsectors, such as indigenous fisheries, was also noted.[62] There has been an increasing number of areas within national jurisdiction closed for fisheries.[63]

67. FFA members indicated that they considered their exclusive economic zones to be marine protected areas for highly migratory species, given the higher standards of monitoring, management and enforcement in such zones as opposed to the

[56] SPRFMO.

[57] SEAFO. Namibia is a member and borders the area covered by the Convention on the Conservation and Management of Fishery Resources in the South-East Atlantic Ocean.

[58] Péter D. Szigeti and Gail Lugten, *The Implementation of Performance Review Reports by Regional Fishery Bodies, 2004-2014*, FAO Fisheries and Aquaculture Circular, No. 1108 (Rome, 2015). Available from www.fao.org/3/a-i4869e.pdf.

[59] Australia, Brazil, Canada, Costa Rica, European Union, FFA members, Mauritius, Mozambique, New Zealand, Norway, Philippines, United States. Brazil noted that it did not implement area restrictions or special management as tools for fisheries management, yet it implemented marine protected areas as a tool for the conservation of the marine ecosystem.

[60] Canada, Mozambique, New Zealand, Norway, United States.

[61] Canada.

[62] Mozambique.

[63] Australia, European Union, United States. See also www.nuestrooceano2015.gob.cl/wp-content/uploads/2015/10/Our-Ocean-2015-Initiatives.pdf; www.mfe.govt.nz/node/21203; and http://palaugov.org/wp-content/uploads/2015/10/RPPL-No.-9-49-Palau-National-Marine-Sanctuary-Act.pdf.

surrounding high seas areas, referring to the Palau Arrangement for the Management of the Purse Seine Fishery in the Western and Central Pacific and its Vessel Day Scheme[64] and the Nauru Agreement concerning Cooperation in the Management of Fisheries of Common Interest and its three implementing arrangements.

68. The role of regional fisheries management organizations and arrangements in developing high seas area-based management tools was highlighted.[65] The European Union was of the view that a new implementing agreement under the Convention should facilitate the establishment of a universally recognized network of marine protected areas for areas beyond national jurisdiction.[66]

69. A number of regional fisheries management organizations and arrangements indicated that they used area-based management tools[67] for such purposes as protecting vulnerable marine ecosystems[68] and rebuilding depleted fish stocks. Such tools could also be combined with seasonal closures.[69]

70. It was noted that many of the constitutive instruments of regional fisheries management organizations incorporated, or confirmed, the use of area-based management tools (e.g. NAFO and GFCM).[70] Furthermore, in 2013, GFCM adopted a resolution on area-based management of fisheries.[71] Following the establishment of a high seas marine protected area in 2009, CCAMLR adopted a general framework for the establishment of marine protected areas in 2011,[72] and a measure to promote awareness of such areas among fishing vessels.[73]

71. The importance of scientific information and capacity-building in the application of area-based management tools was highlighted.[74]

72. FAO reported that it had held regional workshops to assist States and regional bodies to apply the Technical Guidelines for Responsible Fisheries to marine protected areas and fisheries.[75] It launched a database in 2014 containing comprehensive information on measures relating to vulnerable marine ecosystems in areas beyond national jurisdiction.[76]

73. The information received has demonstrated that considerable attention is being paid at the national and international levels to the development of area-based management tools. The importance of capacity-building was highlighted.

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[64] See www.ffa.int/vds.
[65] Norway.
[66] See also resolution 69/292.
[67] CCAMLR, GFCM, IATTC, ICCAT, NAFO, NEAFC, NPFC, SEAFO, SPRFMO, WCPFC.
[68] CCAMLR, NAFO, NEAFC, NPFC, SEAFO, SPRFMO. The European Union also reported on action taken by GFCM in this regard.
[69] NEAFC, ICCAT.
[70] European Union.
[71] Available from www.fao.org/3/a-ax392e.pdf.
[72] Conservation measure 91-02, available from www.ccamlr.org/en/measure-91-02-2012.
[73] See www.ccamlr.org/en/news/2015/34th-annual-meetings-ccamlr-conclude.
[74] PICES.
[75] FAO, *Fisheries Management 4: Marine Protected Areas and Fisheries — FAO Technical Guidelines for Responsible Fisheries, Suppl. No. 4* (Rome, FAO, 2011). Available from www.fao.org/docrep/015/i2090e/i2090e.pdf.
[76] See www.fao.org/in-action/vulnerable-marine-ecosystems/en/.

Reduction of fishing capacity

74. A recurrent theme at the Review Conference, the issue of reduction of fishing capacity was also the object of important commitments in "The future we want", the 2030 Agenda for Sustainable Development and General Assembly resolutions on sustainable fisheries, among others.

75. Almost all States reported on measures to reduce the capacity of fishing fleets.[77] Various approaches to the problem were noted, including bilateral and regional efforts, in particular reductions mandated by regional fisheries management organizations,[78] as well as support for a global fleet register.[79] A joint statement adopted in 2014 on efforts to promote sustainable fishing capacity management on the global scale was highlighted. The reduction of fishing capacity on the basis of the International Plan of Action for the Management of Fishing Capacity was also suggested.[80]

76. Several States reported that they had introduced schemes to reduce excess capacity, including market-based measures, such as individual vessel quotas, a structural quota system and decommissioning scheme,[81] licensing,[82] an individual transferable quota,[83] a quota management system based on output control giving economic incentives,[84] policy flexibility and retirement programmes[85] and limited access privilege programmes.[86] Qatar also noted gear regulations in that regard. The United States noted its 25 per cent overcapacity reduction target, while Norway reported that it did not set target levels. The European Union noted the increase in profitability connected to reduction of capacity and the possibility of permanent cessation of fishing activities under the European Maritime and Fisheries Fund, beginning in 2017.

77. FFA members reported on the reduction of fishing capacity to levels commensurate with the sustainability of fish stocks through subregional cooperation. They also noted the need for flag States to take account of the special requirements of small island developing States in the area covered by the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean.

78. Several regional fisheries management organizations and arrangements reported having taken action to control fishing capacity for fisheries managed by them.[87] ICCAT adopted criteria for the allocation of fishing possibilities in 2015. GFCM adopted guidelines on the management of fishing capacity in its area in 2013, based on the International Plan of Action for the Management of Fishing

[77] Australia, Brazil, Canada, Costa Rica, European Union, FFA members, Japan, Mauritius, Mozambique, New Zealand, Norway, Pakistan, Philippines, Qatar, Togo, United States.
[78] Japan, New Zealand, United States.
[79] European Union.
[80] Japan.
[81] Norway.
[82] Mauritius.
[83] Australia.
[84] New Zealand.
[85] Canada.
[86] United States.
[87] GFCM, IATTC, ICCAT, NAFO, NPFC, SEAFO, SPRFMO, WCPFC. OSPESCA also noted its measures in that regard.

Capacity.[88] NPFC reported that the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean addressed excess fishing capacity.

79. Significant efforts therefore appear to have been made by some States and regional fisheries management organizations and arrangements to manage fishing capacity. Capacity reduction has been recommended in the performance reviews of several organizations and arrangements, indicating a continuing need for efforts to tackle the issue.[89]

Elimination of subsidies that contribute to illegal, unreported and unregulated fishing, overfishing and overcapacity

80. In addition to the recommendations made in 2006 and 2010, the 2030 Agenda for Sustainable Development contains a commitment to, by 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to illegal, unreported and unregulated fishing (target 14.6 of the Sustainable Development Goals), following the "The future we want" and General Assembly resolutions on sustainable fisheries.

81. Several States reported that they had eliminated, or did not have, subsidies that contributed to illegal, unreported and unregulated fishing, overfishing and overcapacity.[90] Some States that still provided financial support indicated limited purposes for which such support could be provided.[91] In that regard, the European Union noted safeguards under the European Maritime and Fisheries Fund and the need to comply with new State aid rules. The Philippines reported that its national plan of action on illegal, unreported and unregulated fishing obliged the Government to revoke incentives to entities found to have engaged in such fishing. The importance of transparency and eliminating harmful subsidies was underscored.[92]

82. Some States noted the continuing negotiations under the auspices of WTO to strengthen fisheries subsidies.[93] The United States indicated that it was also promoting transparency in, and the ultimate elimination of, fisheries subsidies in the Asia-Pacific Economic Cooperation forum, in addition to pursuing ambitious commitments to discipline harmful fisheries subsidies in negotiations for a trans-Pacific partnership agreement and a transatlantic trade and investment partnership agreement.

83. At the global level, States have, in the 2030 Agenda for Sustainable Development (target 14.6), committed themselves to, by 2020, prohibiting certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminating subsidies that contribute to illegal, unreported and unregulated fishing and refraining from introducing new such subsidies, recognizing that appropriate

[88] Available from www.fao.org/3/a-ax393e.pdf.

[89] Péter D. Szigeti and Gail Lugten, *The Implementation of Performance Review Reports by Regional Fishery Bodies, 2004-2014*, FAO Fisheries and Aquaculture Circular, No. 1108 (Rome, 2015). Available from www.fao.org/3/a-i4869e.pdf.

[90] Brazil, Canada, European Union, FFA members (no subsidies), Japan, New Zealand, Norway, Togo.

[91] Canada, New Zealand, Norway.

[92] Australia, United States.

[93] Japan, New Zealand, United States.

and effective special and differential treatment for developing and least developed countries should be an integral part of the WTO fisheries subsidies negotiation.

84. From the information provided, it appears that at least partial progress has been made in the elimination of harmful subsidies, but it was not possible to assess the degree of progress in relevant efforts.

Data collection and sharing of information

85. In addition to the recommendations made in 2006 and 2010, the importance of scientific knowledge, which is closely linked to the need for enhanced data collection and sharing of information, was also underlined in, among others, "The future we want", the 2030 Agenda for Sustainable Development and General Assembly resolutions on sustainable fisheries.

86. Most States and regional fisheries management organizations and arrangements reported on their data collection and sharing systems and programmes,[94] including requirements under national legislation.[95] FFA members noted that their reporting standards were more stringent than WCPFC rules. Several States emphasized their compliance with obligations to submit timely, complete and accurate fisheries data.[96]

87. Mechanisms to promote data collection included the use of the vessel monitoring system,[97] mandatory logbook and dockside monitoring[98] and observers.[99]

88. The important role of regional fisheries management organizations and arrangements and FAO in data collection and sharing was noted.[100] Support was expressed for efforts in such organizations and arrangements to address data gaps and assist developing countries in meeting their reporting obligations.[101]

89. Mechanisms to review compliance with obligations concerning data collection and reporting have been put in place by some regional fisheries management organizations and arrangements.[102] Possible consequences for failure to report include a request for rectification,[103] exclusion from fishing until the data are provided[104] and the prohibition of retaining species for which data are not provided.[105] GFCM also provides technical assistance where non-compliance results from lack of capacity.

90. FAO support in enhancing the capacity of States in supplying catch and effort data and fishery-related information relates to setting standards and guidelines, offering direct capacity enhancement support to States and providing a platform for improved data and sharing. The Fisheries and Resources Monitoring System

[94] Australia, Brazil, Costa Rica, European Union, FFA members, Japan, Mauritius, Mozambique, Norway, Philippines, Togo, United States; CCAMLR, CCSBT, GFCM, IATTC, ICCAT, NAFO, NEAFC, NPFC, SEAFO, SPRFMO, WCPFC.
[95] European Union, FFA members, Japan, United States.
[96] European Union, Japan, New Zealand, Norway, Qatar.
[97] Canada, FFA members, New Zealand, Norway, Qatar.
[98] Canada.
[99] Canada, FFA members, New Zealand.
[100] Canada, Pakistan.
[101] United States.
[102] CCAMLR, GFCM, ICCAT, NAFO.
[103] GFCM.
[104] NPFC.
[105] ICCAT.

partnership is aimed at facilitating access by decision makers to a wide range of high-quality information on the status and trends of global marine fishery resources, fisheries and their management.[106] Efforts to strengthen the partnership are under way.[107]

91. In 2012, FAO, through RECOFI, established catch and effort data reporting and sharing mechanisms among eight countries surrounding the Persian Gulf.

92. With regard to the revision of the FAO global fisheries statistics database[108] to provide information for the stocks to which the Agreement applies and for discrete high seas stocks on the basis of where the catch was taken, FAO has collaborated with regional fisheries bodies on the modification of the boundaries of the statistical divisions, with the aim of obtaining separate data between catches taken inside and outside exclusive economic zones of coastal States, in relation to the north-east, south-east and eastern central Atlantic Ocean. In 2009, the FAO worldwide review of bottom fisheries in the high seas provided data on such fisheries (see also para. 110).[109]

93. In 2011, the secretariat of IOTC produced estimates of historical catches of tuna and tuna-like species in the exclusive economic zone and the high seas, to be used in tests of proposed allocation mechanisms.

94. The contributions to the report did not allow for an assessment of progress in compliance with the requirements for regional fisheries management organizations and arrangements or agreements to collect and submit timely, complete and accurate fisheries data. In some instances, assistance was provided when non-compliance resulted from lack of capacity. Measures, such as non-participation in relevant fisheries and prohibitions on the retention of catch, have also been used to tackle non-compliance. Progress in creating effective incentives to promote compliance has been limited, however. Efforts to improve the sharing of data among regional fisheries management organizations and arrangements and with FAO have been strengthened, but there is scope for further improvement, especially in data collection.

95. Improvement is also needed in reporting information to FAO on associated species. A significant part of catches of those species is discarded at sea, but it cannot be quantified, given that neither countries nor FAO routinely collect and compile the information. In recent years, two tuna regional fisheries management organizations (ICCAT and IOTC) have expanded their coverage of catch data to several associated species (such as oceanic sharks, dolphinfish and bonitos). This is reflected also in the FAO capture database. Nevertheless, the information available still does not allow for a comprehensive evaluation of the state of exploitation for some species of this group (see also sect. II).[110]

96. The difficulties faced by FAO and regional fisheries management organizations in obtaining catch data, separated between fish caught within and outside areas of national jurisdiction, from fishing nations remain a particularly

[106] See http://firms.fao.org/firms/en.
[107] European Union, Japan.
[108] See www.fao.org/fishery/statistics/en.
[109] Alexis Bensch and others, *Worldwide Review of Bottom Fisheries in the High Seas*, FAO Fisheries and Aquaculture Technical Paper, No. 522, Rev.1 (Rome, FAO, 2009). Available from ftp://ftp.fao.org/docrep/fao/012/i1116e/i1116e01.pdf.
[110] Based on information provided by FAO.

limiting factor to the implementation of the relevant recommendations of the Review Conference.

Conservation and management of sharks

97. Since the issue was addressed in 2010, increasing attention has been given to the need to improve the conservation and management of sharks in various international forums, including the General Assembly, through its resolutions on sustainable fisheries, the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the Convention on Migratory Species.

98. Almost all States reported on action to strengthen the conservation and management of sharks, nationally and through regional fisheries management organizations and arrangements.[111] Action at the national level included the regulation of directed fishing and finning.[112] In particular, in line with the International Plan of Action for the Conservation and Management of Sharks, several States have adopted and implemented national plans of action.[113] Some States have declared maritime zones under their national jurisdiction as shark sanctuaries and put in place legislation to prohibit the targeting and possession of sharks.[114]

99. Several regional fisheries management organizations and arrangements have adopted measures aimed at regulating directed fisheries for sharks and/or by-catch of sharks,[115] including prohibiting or controlling the retention of sharks on board to regulate finning.[116] WECAFC has supported the development of national plans of action on sharks, while WCPFC has cooperated on shark conservation with IATTC and the secretariat of the Pacific Community. Support was expressed for revising the constitutive instruments of regional fisheries management organizations (e.g. ICCAT) to enable them to directly manage fisheries for sharks.[117]

100. Measures to protect sharks have also been taken by the parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the Convention on Migratory Species, including the signing of a memorandum of understanding on sharks under the latter instrument by some 40 States (see paras. 19-22). FAO cooperated with the secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora with regard to shark protection measures.

101. Since the development of the International Plan of Action for the Conservation and Management of Sharks, FAO has conducted activities to support States in its implementation. It compiled a report on the extent of implementation and the challenges faced by members in 2012, in which it was concluded that the main problems hindering successful implementation were linked to problems with fisheries

[111] Australia, Brazil, Canada, Costa Rica, European Union, FFA members, Japan, Mozambique, New Zealand, Norway, Pakistan, Philippines, Qatar, Togo, United States.

[112] European Union, FFA members.

[113] Australia, Brazil, Costa Rica, Japan, New Zealand, Philippines. The European Union has adopted an action plan for the conservation and management of sharks.

[114] FFA members.

[115] CCAMLR, GFCM, IATTC, ICCAT, NAFO, NEAFC, OSPESCA, SEAFO, SPRFMO, WCPFC. CCSBT also reported on its recommendation relating to ecologically related species, which includes sharks. See also IOTC resolutions 12/09, 13/05 and 13/06.

[116] ICCAT, NAFO, NEAFC, OSPESCA.

[117] Canada.

management in general, such as institutional weaknesses, lack of trained personnel and deficits in fisheries research and monitoring, control and surveillance.[118]

102. FAO has also supported the development and implementation of regional and national plans of action by providing specific regional and in-country technical assistance, including legal and policy support. It has collaborated with other international bodies, such as the World Customs Organization, and developed a database on shark management measures.

103. To address data problems, including unavailability and inconsistencies, FAO periodically analyses international shark trade data. A recent report provided an updated picture of the global market for shark products.[119]

104. The FAO catch statistics depend entirely on the collaboration of FAO members. The taxonomic detail of shark and ray catches reported to FAO, although still highly deficient, has improved in the past decade, which is evidence that increased attention is being paid to data collection. Several new FAO species identification guides produced recently were focused on shark species, including deep-sea cartilaginous fishes.[120] FAO has also supported hands-on training of scientists, on-board observers, fishers and fishery officers on the identification of shark species and products.

105. While FAO has developed a database on shark management measures, data collection, in particular concerning shark by-catch, remains problematic (see paras. 17 and 30).

106. In sum, progress in strengthening measures to conserve and manage shark by-catch was reported by most States and regional fisheries management organizations and arrangements, but detailed information on the enforcement of prohibitions on finning was not provided. There was also insufficient information on the impact of measures concerning shark by-catch and on the implementation of the International Plan of Action for the Conservation and Management of Sharks.

Conservation and management measures for deep-sea fisheries

107. Given that several deep-water species are considered to be straddling fish stocks or discrete high seas fish stocks, the Review Conference addressed the issue in 2006 and 2010. It has since received increased attention by the General Assembly in its review of action taken by States and regional fisheries management organizations and arrangements to address the sustainability of bottom fisheries and impacts on vulnerable marine ecosystems.

108. Measures taken by regional fisheries management organizations and arrangements to regulate bottom fishing in areas beyond national jurisdiction and

[118] FAO, *Review of the Implementation of the International Plan of Action for the Conservation and Management of Sharks*, FAO Fisheries and Aquaculture Circular, No. 1076 (Rome, 2012). Available from www.fao.org/fi/oldsite/eims_search/1_dett.asp?calling=simple_s_result&lang=en&pub_id=308384.

[119] Felix Dent and Shelley Clarke, *State of the Global Market for Shark Products*, FAO Fisheries and Aquaculture Technical Paper, No. 590 (Rome, FAO, 2015). Available from http://www.fao.org/3/a-i4795e.pdf.

[120] For example, see www.fao.org/fishery/ipoa-sharks/iSharkFin/en.

their implementation,[121] as well as additional measures voluntarily taken in areas covered by such organizations and arrangements, were highlighted.[122]

109. Several regional fisheries management organizations and arrangements have taken action to establish long-term conservation and management measures for deep-sea fisheries, including in accordance with the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas.[123] Such measures cover identification of vulnerable marine ecosystems and existing bottom fishing areas, limitations on the expansion of fisheries, including the development of an exploratory fisheries protocol for fisheries outside the existing fishing areas, and closures of certain areas with vulnerable marine ecosystems to bottom fishing. GFCM has banned bottom-trawling activities in waters deeper than 1,000 m. In 2015, NAFO decided to exclude all bottom fishing activities from seamount areas.

110. FAO has developed a programme on deep-sea fisheries to facilitate the implementation of its International Guidelines for the Management of Deep-Sea Fisheries in the High Seas.[124] A global database on vulnerable marine ecosystems was launched in 2014. The *Worldwide Review of Bottom Fisheries in the High Seas* is being updated by FAO to cover the period 2007-2014.

111. In the light of the foregoing, it appears that some progress has been made on measures for deep-sea fisheries and their implementation, as well as additional measures voluntarily taken by States in areas covered by regional fisheries management organizations and arrangements.

112. Notwithstanding the activities relating to data collection undertaken to date, research is still under way and increased information on deep-sea catches will be important. The General Assembly's further review of action taken by States and regional fisheries management organizations and arrangements with regard to bottom fishing, to be held in 2016, will offer a renewed opportunity for States to take stock of progress and determine further action to be taken, if necessary.

Determination of reference points and rebuilding and recovery strategies

113. Addressed in 2010, the issue of determination of reference points and rebuilding and recovery strategies was the subject of subsequent commitments, including in "The future we want", as a follow-up to the earlier commitment made in the Plan of Implementation of the World Summit on Sustainable Development, and the 2030 Agenda for Sustainable Development, in addition to General Assembly resolutions on sustainable fisheries.

114. Several States reported on action relating to the determination of stock-specific reference points, remedial action in case of overfishing, and recovery and rebuilding plans and strategies.[125] Some reported having undertaken activities such as stock assessments, studies and research.[126] FFA members referred to interim

[121] Australia, Canada, Norway.
[122] Canada, Japan, NPFC.
[123] CCAMLR, NAFO, NEAFC, NPFC, SEAFO, SPRFMO, WECAFC.
[124] See also www.fao.org/fishery/deepsea-highseas/en.
[125] Australia, Brazil, Canada, Costa Rica, European Union, FFA members, Japan, Mozambique, New Zealand, Norway, Pakistan, Philippines, Qatar, United States.
[126] Brazil, European Union, Japan, Mozambique, Philippines, Qatar.

target reference points and limit reference points adopted at the subregional and regional levels.

115. The role of regional fisheries management organizations and arrangements in setting reference points[127] and establishing harvest control rules[128] was emphasized. Several such organizations and arrangements reported on their use of precautionary reference points, including the development of limit reference points, and/or on their rebuilding and recovery strategies.[129] For example, WCPFC agreed in 2014 to implement a harvest strategy approach for key fisheries and stocks in the western and central Pacific Ocean. ICCAT was continuing its work to develop limit reference points.

116. Some States reported on how their rebuilding and recovery strategies were developed and triggered.[130] In some cases, harvest control rules integrate recovery and rebuilding elements that will become operative if the situation so requires.[131] The European Union is developing multiannual plans to guide the fixing of fishing opportunities within levels compatible with maximum sustainable yield, based on scientific advice and the precautionary approach.

117. Several regional fisheries management organizations and arrangements also reported on several forms of rebuilding and recovery strategies, which utilized, among other things, target reference points and moratoriums.[132] CCSBT, IATTC, ICCAT, NAFO, SPRFMO and WCPFC have rebuilding plans for specific stocks. Rebuilding plans are also an integral part of the NEAFC long-term management plans. CCAMLR has established closed areas and closed fisheries for depleted stocks, and conducts periodic research surveys to monitor the recovery of those stocks. Each year CCSBT evaluates whether any exceptional circumstances justify deviation from its recommendations.

118. On the basis of the responses received, it appears that progress in connection with action relating to the determination of stock-specific reference points, remedial action in case of overfishing, and recovery and rebuilding plans and strategies has been made by several States.

119. Several regional fisheries management organizations and arrangements also provided comprehensive reports on the strengthened use of precautionary reference points, including the development of interim target reference points and limit reference points, and on their various rebuilding and recovery strategies. However, sufficient information was not available to assess whether those strategies had a high probability of ensuring that agreed stock-specific reference points would not be breached.

[127] FFA members, New Zealand, United States.
[128] New Zealand, Norway.
[129] CCAMLR, GFCM, IATTC, ICCAT, NAFO, NEAFC, NPFC, SEAFO, SPRFMO, WCPFC. New Zealand reported on action by CCSBT, in that regard. See also IOTC resolution 15/10. In addition, NASCO and OSPESCA reported their action.
[130] Australia, FFA members, Mozambique, Norway, United States.
[131] Norway.
[132] CCSBT, IATTC, ICCAT, NAFO, NEAFC, SPRFMO, WCPFC.

Science-policy interface

120. In 2010, the Review Conference explicitly addressed the issue of the science-policy interface and it was also underlined by the General Assembly when it established the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects.

121. Most States reported on action taken to strengthen interaction between fisheries managers and scientists to ensure that conservation and management measures were based on the best available scientific evidence and met the management objectives set by regional fisheries management organizations and arrangements.[133] Some expressed their support for the Kobe II strategy matrix and the scientific review of management measures.[134]

122. Several regional fisheries management organizations and arrangements indicated that they addressed the science-policy interface through, among other things, scientific committees and working groups,[135] or external scientific advisory bodies.[136] IATTC referred to the provisions of the Convention for the Strengthening of the Inter-American Tropical Tuna Commission Established by the 1949 Convention between the United States of America and the Republic of Costa Rica (Antigua Convention) in that regard. In 2013, NAFO reformed the way in which scientific advice was presented to managers and in 2015 adopted measures to improve the functioning of joint-science management working groups.

123. Some organizations and arrangements indicated that they required management measures to be based on the best available science.[137] NEAFC said that it interacted regularly with ICES to ensure that the science-policy interface remained strong, while maintaining the independence of scientists.

124. On the basis of the foregoing, it appears that progress has been made in strengthening interaction between fisheries managers and scientists to ensure that conservation and management measures are based on the best available scientific evidence and meet the management objectives set by regional fisheries management organizations and arrangements.

By-catch management, including action addressing discards or the impact of lost or abandoned gear

125. In 2006 and 2010, the Review Conference took up the issue of by-catch and discards. Following a recommendation in 2010, the International Guidelines on By-catch Management and Reduction of Discards were endorsed by FAO in 2011. Subsequently, the General Assembly addressed the issue through its resolutions on sustainable fisheries.

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[133] Australia, Brazil, Canada, European Union, FFA members, Japan, Mozambique, New Zealand, Norway, Pakistan, Philippines, Qatar, United States.

[134] New Zealand, United States.

[135] CCAMLR, CCSBT, ICCAT, NAFO, SEAFO, SPRFMO, WCPFC. Mauritius reported on the process connecting science and management at IOTC. WECAFC also reported on its collaboration with the University of the West Indies, which provides scientific advice to the Commission, as well as the improved functioning of its Scientific Advisory Group.

[136] NEAFC.

[137] CCAMLR, NEAFC, WCPFC.

126. Most States reported having taken action relating to by-catch management, including for specific species (such as sharks, seabirds and sea turtles), and made efforts to establish mechanisms to monitor and reduce discards.[138]

127. Reported action relating to by-catch management included closures, move-on rules, tailored quota systems, compensation for landing all catches, by-catch strategies, strict reporting requirements, the use of selective fishing gear, policy reviews, the implementation of international and national plans of action, the publication of brochures regarding reduction of incidental catch and the introduction of a "no-discard" policy.[139] For example, a group of States have gradually introduced a "no-discard" policy since 2015.[140]

128. New Zealand reported on its prohibition of driftnet fishing, while Mozambique reported that its implementation of a measure for reducing impacts on non-target species had been limited.

129. Several regional fisheries management organizations and arrangements reported on measures relating to by-catch management,[141] including for seabirds,[142] sharks and turtles.[143] IOTC is considering action plans for mitigating catches of turtles, sharks and birds.[144] NPFC reported on measures for the conservation of vulnerable marine ecosystems to address by-catch management.

130. In 2015, NAFO adopted an action plan on by-catch and discards to improve effectiveness in the collection and use of data. NEAFC reported that, where by-catch of stocks had become significant, or where they had developed into new fisheries, it had adopted conservation and management measures for the species.[145]

131. CCAMLR indicated that it had adopted broad by-catch management measures, which, among other things, had led to near-zero levels of seabird by-catch during the past decade.

132. Several regional fisheries management organizations and arrangements also reported on their measures regarding discards,[146] including restrictions on non-selective gear and fish-aggregating devices;[147] prohibitions on retaining undersized fish;[148] reporting requirements;[149] the inclusion of by-catch and discards

[138] Australia, Brazil, Canada, Costa Rica, European Union, FFA members, Japan, Mauritius, Mozambique, New Zealand, Norway, Philippines, Qatar, United States.
[139] Australia, Canada, European Union, FFA members, Japan, Mauritius, Mozambique, New Zealand, Norway, Philippines, Qatar, United States.
[140] European Union.
[141] CCAMLR, GFCM, IATTC, ICCAT, NAFO, NEAFC, SEAFO, SPRFMO, WCPFC. In addition, action has been taken by other regional bodies, including APFIC, NASCO, NPAFC, OSPESCA, PICES and WECAFC.
[142] ICCAT, SPRFMO, WCPFC.
[143] ICCAT, WCPFC.
[144] Mozambique.
[145] E.g., roughhead grenadier. See http://neafc.org/system/files/Rec5_roughhead%20grenadier_2015.pdf.
[146] CCSBT, IATTC, NAFO, NEAFC, SEAFO, SPRFMO, WCPFC. See also IOTC resolution 15/06.
[147] SPRFMO, WCPFC.
[148] NAFO.
[149] NAFO, CCSBT.

in catch quotas;[150] the development and use of selective, environmentally safe and cost-effective fishing gear and techniques;[151] general bans on discards in some fisheries;[152] and observer programmes.[153] IATTC reported on research efforts to identify the designs of fish-aggregating devices that would reduce the attraction and/or entanglement of non-target species.

133. Specific steps to address marine debris have been taken generally, including in "The future we want" and the 2030 Agenda for Sustainable Development, under the Convention on Migratory Species and in regional forums, as well as in the Action Plan to Combat Marine Litter adopted by the Group of Seven in 2015. At its seventeenth meeting, to be held in June 2016, the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea will focus on marine debris, plastics and microplastics, while the United Nations Environment Assembly of the United Nations Environment Programme will discuss marine plastic debris and microplastics at its second session, in May 2016.

134. Several States reported on measures taken to deal with lost or abandoned gear and related marine debris. Measures taken to promote the recovery of lost or abandoned gear and reporting requirements for fishers[154] included government observers aboard vessels,[155] tagging and GPS tracking,[156] licence conditions[157] and financial support through a fund.[158] The European Union requires the retrieval or reporting of such gear. Mozambique has prohibited the abandonment of gear. The United States reported on its debris programme under the 2012 amendment to the Marine Debris Research, Prevention and Reduction Act (2006).

135. Some regional fisheries management organizations and arrangements reported on action to tackle lost and abandoned gear,[159] including reporting requirements for lost gear,[160] marking of gear,[161] requirements to retrieve lost gear[162] and cooperation with regional seas programmes on awareness-raising.[163]

136. CCAMLR described its monitoring and reporting on marine debris, the prohibition on disposing of incinerator ash and the use of plastic packaging bands to secure bait boxes.

137. FAO collaboration with the United Nations Environment Programme includes providing technical advice to the Global Partnership on Marine Litter. FAO has provided technical input through IMO on the impacts of marine pollution on fisheries and aquaculture, in particular through the recent revision of annex V to the

[150] NEAFC. It reported that, because of national rules incompatible with the discard ban, one contracting party had objected to it and was not bound by the prohibition. CCSBT reported moving towards the approach.
[151] NPFC.
[152] IATTC, NEAFC.
[153] CCSBT.
[154] Canada, Japan, New Zealand, Norway.
[155] New Zealand.
[156] Canada.
[157] Australia, Canada.
[158] Japan.
[159] GFCM, ICCAT, NAFO, NEAFC.
[160] NAFO.
[161] ICCAT.
[162] NEAFC.
[163] GFCM.

International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto. FAO is planning an expert consultation, to be held in 2016, on the marking of gear with the objective of providing a simple, workable and enforceable means of identifying the ownership and position of gear.

138. On the basis of the foregoing, it appears that some progress has been made in relation to by-catch management, including species-related measures and efforts to adopt mechanisms to monitor and reduce discards.

139. It appears that some progress has also been made in addressing and mitigating the incidence and impacts of lost or abandoned gear and establishing mechanisms for the regular retrieval of derelict gear. The increasing attention being paid to marine debris, plastics and microplastics at the global level has the potential to trigger strengthened action by States and other relevant stakeholders to take on the issue of lost or abandoned gear.

2. Conclusions

140. The General Assembly has continuously reaffirmed the importance of the long-term conservation, management and sustainable use of living marine resources.[164] Recommendations concerning the conservation and management of straddling fish stocks and highly migratory fish stocks have also been made by the Review Conference, together with other important commitments relating to fisheries, such as those contained in Assembly resolutions on sustainable fisheries, "The future we want" and the 2030 Agenda for Sustainable Development. Action aimed at the implementation of the commitments would be mutually reinforcing.

141. States and regional fisheries management organizations and arrangements have made some progress in implementing many of the recommendations of the Review Conference. As noted in section II, however, the status of a significant number of stocks has continued to deteriorate. It is therefore imperative that States and organizations and arrangements take further action to, among other things, adopt effective conservation and management measures in line with the best scientific information available,[165] while widely applying the precautionary and ecosystem approaches.[166] In keeping with the commitment to restore depleted stocks to levels that can produce maximum sustainable yield on an urgent basis and, where possible, not later than 2015,[167] it is important to explore ways to make significant progress in this regard.

142. As indicated by the General Assembly, States need to intensify their efforts to assess and address the impacts of global climate change and ocean acidification on the sustainability of fish stocks and their habitats.[168] In this regard, additional action would be needed with regard to the enhanced integration of environmental factors into the adoption and review of conservation and management measures, as well as regarding the inadequate resources for monitoring environmental factors. States also need to ensure the implementation of accurate, complete, reliable and effective data

[164] Resolution 70/75, para. 1.
[165] Ibid., para. 144.
[166] Ibid., para. 8.
[167] Ibid., para. 4.
[168] Ibid., para. 6.

collection and reporting of required data on catches, including by-catch and discards. Further improvement is required in, among others, the creation of effective incentives to promote compliance and data collection and reporting on associated species.

143. Closely related to the implementation of ecosystem approaches, further action is necessary for the adoption and implementation of measures to fully implement the International Plan of Action for the Conservation and Management of Sharks,[169] the minimization of by-catch and the reduction or elimination of catch by lost or abandoned gear, fish discards and post-harvest losses.[170] Enhanced use of area-based management tools is also required.

144. Addressing overfishing, including illegal, unreported and unregulated fishing, requires reducing the capacity of the world's fishing fleets to levels commensurate with the sustainability of fish stocks.[171] Accordingly, subsidies that contribute to overfishing and overcapacity and to illegal, unreported and unregulated fishing have to be eliminated.[172]

145. Although there appear to have been some improvements, there is insufficient information to assess progress in the achievement of compatible measures. It is therefore suggested that mechanisms be established and put into operation to strengthen the exchange of information and data to support the development of compatible measures.

146. While some progress has been made with regard to conservation and management measures for deep-sea fisheries, the General Assembly's further review of action taken by States and regional fisheries management organizations and arrangements with regard to bottom fishing, to be held in 2016, will offer a renewed opportunity for States to take stock of progress to date and determine whether further action is necessary. Further collection of the necessary data would provide assistance in this regard.

B. Mechanisms for international cooperation and non-members

147. International cooperation, based on the framework set out in the Convention and the Agreement, is essential to ensuring the effective and long-term conservation and management of straddling fish stocks and highly migratory fish stocks. The Review Conference in 2006 (A/CONF.210/2006/15, annex, para. 32) and 2010 (A/CONF.210/2010/7, annex, sect. II) made important recommendations in this context to promote international cooperation through regional fisheries management organizations and arrangements and to increase their effectiveness. The recommendations pertained to such issues as strengthening the mandates of organizations and arrangements; undertaking regular performance reviews and implementing the recommendations; strengthening cooperation among organizations and arrangements; addressing participatory rights in organizations and arrangements and the participation of non-members; decision-making rules and procedures in organizations; the establishment of new organizations and arrangements;

[169] Ibid., para. 17.
[170] Ibid., para. 113.
[171] Ibid., para. 103.
[172] Ibid., para. 108.

cooperation to examine and clarify the role of the "genuine link" in relation to flag State control; and specific measures to enhance the ability of developing States to develop their fisheries for straddling fish stocks and highly migratory fish stocks, including facilitating access to such fisheries.

1. Measures taken at the national and international levels

Strengthening regional fisheries management organizations and arrangements

148. The Review Conference called for the modernization of the mandates of regional fisheries management organizations and arrangements to reflect explicit provisions for the use of modern approaches to conservation and management.

149. Most States reported on efforts to strengthen the mandates of the organizations and arrangements to which they belonged,[173] including through the adoption of best practices, the inclusion of review mechanisms in measures,[174] the adoption of compliance and monitoring measures,[175] the establishment and strengthening of compliance committees,[176] the enhancement of scientific knowledge and advice,[176] and the incorporation of modern approaches into newly concluded or amended constitutive instruments of organizations and arrangements and into interim measures.[177]

150. A group of States reported having made efforts to improve the science base of regional fisheries management organizations and arrangements and the efficiency of compliance assessment processes, including through financial contributions.[178]

151. A number of regional fisheries management organizations and arrangements said that they had strengthened their mandates and/or measures to implement modern approaches to fisheries management, in particular precautionary and ecosystem approaches, including through performance review processes.[179] Some noted continuing efforts to improve the utilization of the best available scientific advice in conservation and management measures.[180]

152. The Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean, which entered into force in 2015, includes modern approaches to fisheries, such as precautionary and ecosystem approaches and the utilization of the best scientific information available.

153. SPRFMO is continuously reviewing existing measures and adopting new ones with a view to implementing state-of-the-art fisheries management, while relying on the best scientific information available, and applying precautionary and ecosystem approaches to fisheries management.

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[173] Australia, Brazil, Canada, European Union, FFA members, Japan, New Zealand, Norway, Togo, United States.
[174] Australia.
[175] New Zealand.
[176] European Union.
[177] Canada, Japan, New Zealand, Norway, United States.
[178] European Union.
[179] CCAMLR, CCSBT, GFCM, ICCAT, NAFO, NEAFC, NPFC, SPRFMO, WECAFC.
[180] CCAMLR, CCSBT, NPFC, SEAFO, SPRFMO.

154. SEAFO is reviewing certain conservation measures dealing with total allowable catches and measures to improve the protection of vulnerable marine ecosystems with advice from its scientific committee.

155. As a follow-up to its performance review, GFCM has amended its constitutive instrument and strengthened its mandate, including for decision-making. IATTC said that its mandates had been expanded and strengthened through the entry into force of the Antigua Convention in 2010,[181] while ICCAT reported that it was revising the International Convention for the Conservation of Atlantic Tunas.

156. WECAFC indicated that, while it had been making fisheries management recommendations since 2014, it was for its members to integrate them into national laws and regulations.

157. On the basis of the responses received, steady progress has been made by States and regional fisheries management organizations and arrangements in strengthening the mandates and measures of the organizations and arrangements, through various initiatives.

Undertaking performance reviews and promoting best practice guidelines

158. In 2006, the Review Conference called upon regional fisheries management organizations and arrangements to urgently undergo performance reviews that included some element of independent evaluation, using transparent criteria based on the Agreement and other relevant instruments, as well as best practices, and to ensure that the results were made publicly available. In 2010, the organizations and arrangements were further called upon to undertake first reviews no later than 2012, to undertake reviews regularly and to make publicly available information on action taken to implement the recommendations from such reviews.

159. Most States stressed their continuing support for performance reviews and their active involvement as members.[182] For example, Qatar indicated that it was involved in the performance review in RECOFI[183] and noted that a workplan had been developed using the best practices of other regional commissions.

160. Some States highlighted the public availability of information pertaining to performance reviews[184] and their efforts in the implementation of the recommendations from the reviews.[185] New Zealand said that it had prepared a draft updated strategic plan and associated action plan to incorporate relevant elements from the recommendations of the CCSBT review.[186] Some States also stressed how they promoted regular performance reviews.[187]

161. Since 2010, the following regional fisheries management organizations and arrangements with the competence to manage straddling fish stocks or highly

[181] See www.iattc.org/PDFFiles2/Antigua_Convention_Jun_2003.pdf.
[182] Australia, Brazil, Canada, European Union, Japan, Norway, Togo, Qatar, United States.
[183] See www.fao.org/docrep/meeting/022/am411e.pdf.
[184] Japan, New Zealand, Norway.
[185] Australia, Canada, European Union, New Zealand, Qatar.
[186] See www.tuna-org.org/Documents/2014_CCSBT_Independent_Performance_Review.pdf.
[187] European Union, Japan, Mauritius, New Zealand, Norway.

migratory fish stocks have completed a first performance review:[188] GFCM (2011), NAFO (2011), SEAFO (2010) and WCPFC (2012). As recommended, the reviews were conducted by 2012 by review panels with some element of independent evaluation. The reports of the reviews have been made publicly available.[189]

162. The performance review of IATTC is under way, and SEAFO will conduct a second review early in 2016.[190] NEAFC and CCSBT completed their second reviews in 2014 and the reports thereon have been made public. CCAMLR, ICCAT and NAFO are planning for their second reviews. NAFO has established a working group to develop the scope, timeline and draft terms of reference for its second review, which would present its recommendations in 2016.

163. NPFC noted that the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean provided a framework for periodic performance reviews. SPRFMO noted that the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean provided for reviews to be undertaken every five years, guided by best international practices, with the results made publicly available. It has already incorporated review clauses into many of its conservation and management measures.

164. Many regional fisheries management organizations and arrangements highlighted their efforts to implement the recommendations made in the performance reviews.[191] Some organizations and arrangements also reported that information on implementing action was publicly available.[192] For example, CCAMLR reported that a matrix on the status of its consideration of the recommendations made in its review was updated annually on its website. In 2015, CCSBT adopted a strategic plan incorporating many of the recommendations made in its review in 2014, including a high-priority goal to undertake reviews periodically to routinely assess opportunities for improvements, including both self-assessment and independent reviews.[193] NAFO noted that the plan of action developed on the basis of its review had a good implementation rate.

165. NEAFC noted that its second performance review took account of the best practices of other regional fisheries management organizations. At its thirty-fourth annual meeting, in 2015, NEAFC implemented some of the recommendations stemming from the review, including adopting terms of reference for a working group on a framework for coastal State negotiations.[194]

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[188] For performance reviews conducted between 2006 and 2010, see A/CONF.210/2010/1, paras. 247-294. In addition to the regional fisheries management organizations and arrangements mentioned herein, the FAO Fishery Committee for the Eastern Central Atlantic, the Caribbean Regional Fisheries Mechanism, IPHC, NASCO, NPAFC, the Pacific Salmon Commission, RECOFI, the Southwest Indian Ocean Fisheries Commission and WECAFC conducted performance reviews between 2010 and 2014.

[189] For consolidated information on the performance reviews, see Péter D. Szigeti and Gail Lugten, *The Implementation of Performance Review Reports by Regional Fishery Bodies, 2004-2014*, FAO Fisheries and Aquaculture Circular, No. 1108 (Rome, 2015), available from www.fao.org/3/a-i4869e.pdf.

[190] ICCAT is also working towards a second performance review.

[191] CCAMLR, CCSBT, GFCM, IPHC, NAFO, NEAFC, NPFAC, SEAFO, WCPFC.

[192] CCAMLR, GFCM.

[193] See ccsbt.org/sites/ccsbt.org/files/userfiles/file/docs_english/meetings/meeting_reports/ccsbt_22/report_of_CCSBT22.pdf.

[194] See www.neafc.org/system/files/AM-2015-press-statement-final_0.pdf.

166. The recommendations arising from the SEAFO performance review in 2010 were addressed by its Commission. WCPFC reported that it had undergone a review as part of the joint tuna regional fisheries management organizations process, noting that the outcome had been considered and most of the recommendations implemented.

167. FAO reported on a new publication that provided a history, description and overview of the performance review processes of regional fisheries bodies and the implementation measures taken following the reviews.[195]

168. On the basis of the responses received, it appears that considerable progress has been made in the completion of performance reviews, which have involved at least some degree of independent input and the results of which have been made public. Some progress has been made on the recommendation that reviews be conducted regularly. Nevertheless, more progress is needed in respect of the implementation of recommendations, in particular in meeting the recommendation that action on implementation be made publicly available.

Strengthening and enhancing cooperation among regional fisheries management organizations and arrangements

169. In 2010, the Review Conference encouraged States to strengthen cooperation among regional fisheries management organizations and arrangements and called for the establishment of joint working groups or other mechanisms to facilitate the development of harmonized measures across organizations and arrangements. It also invited organizations and arrangements with the competence to manage straddling fish stocks to consider holding joint meetings to exchange views on key issues and to share best practices.

170. Most States highlighted their continuing support for enhanced cooperation among regional fisheries management organizations and arrangements, including in the harmonization of rules across them.[196] Some also noted the establishment of working groups and other mechanisms between organizations and arrangements to improve cooperation and harmonize measures.[197] For example, work was continuing in NAFO to harmonize port State measures with measures adopted by NEAFC.[198]

171. Support was expressed for improved cooperation between regional fisheries management organizations and arrangements and other relevant international organizations in areas of mutual interest, such as the regional seas conventions and scientific bodies, such as ICES, including by entering into memorandums of understanding or partnership agreements.[199] The European Union noted that its development policy had supported the establishment of the African Platform for Regional Institutions for Fisheries, Aquaculture and Aquatic Systems in order to reinforce cooperation. It also noted the important role of members of multiple regional fisheries management organizations and arrangements in sharing experiences between organizations.

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[195] See Péter D. Szigeti and Gail Lugten, *The Implementation of Performance Review Reports by Regional Fishery Bodies, 2004-2014*, FAO Fisheries and Aquaculture Circular, No. 1108 (Rome, 2015). Available from www.fao.org/3/a-i4869e.pdf.

[196] Australia, Brazil, Canada, European Union, Japan, New Zealand, Norway, United States.

[197] Canada, Norway.

[198] Norway.

[199] European Union.

172. Several States noted their involvement in, and continued support for, the Kobe process, which was intended to coordinate the activities of the five tuna regional fisheries management organizations.[200] The third joint meeting of the tuna regional fisheries management organizations was held in 2011, resulting in targeted recommendations and the formation of a steering committee to advance and implement coordinated best-practice measures.[201] New Zealand considered that that process might be usefully applied to other regional fisheries management organizations and arrangements. The United States indicated that it was working through WCPFC and IATTC, as well as the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, to promote compatible conservation and management for trans-Pacific stocks such as bluefin tuna.

173. Many regional fisheries management organizations and arrangements reported on their efforts to strengthen and enhance cooperation, including through collaborative arrangements dealing with overlapping areas and/or species and issues of common concern, such as illegal, unreported and unregulated fishing.[202] Several were participating in regional meetings and in global initiatives, such as the Regional Fishery Body Secretariats Network and the Kobe process, and FAO initiatives, such as the Coordinating Working Party on Fishery Statistics, the Fisheries and Resources Monitoring System and the Fisheries Global Information System, and the Global Environment Facility project on sustainable fisheries management and biodiversity conservation of deep-sea living marine resources and ecosystems in the areas beyond national jurisdiction and the database on vulnerable marine ecosystems.[203] Some also noted provisions in their constitutive instruments and arrangements to enhance cooperation with other organizations.[204]

174. CCSBT indicated that, as a species-specific regional fisheries management organization, it was careful when adopting new measures to consider consistency with other organizations, in particular CCAMLR, IATTC, IOTC, SPRFMO and WCPFC.[205]

175. In 2014, NAFO and NEAFC established a joint advisory group on data management to promote harmonization of the format in reporting for fishing vessels and also cooperated in the management of a fish stock.

176. SEAFO has a joint illegal, unreported and unregulated vessel listing agreement with CCAMLR, NAFO and NEAFC.

177. WCPFC collaborates with partners in the Pacific Oceanscape Framework. It is also taking steps to deal with areas in which coverage overlaps with IATTC, including by requiring States operating in both areas to declare which organization's measures apply and to appropriately attribute catch history.

178. The responses received point to a considerable increase in cooperation among regional fisheries management organizations and arrangements at many levels, including through the joint meetings of the tuna regional fisheries management

[200] Canada, European Union, Japan, New Zealand, United States.
[201] United States.
[202] CCAMLR, CCSBT, GFCM, IATTC, ICCAT, NAFO, NASCO, NEAFC, NPAFC, OSPESCA, PICES, SEAFO, WCPFC, WECAFC.
[203] CCAMLR, CCSBT, IATTC, ICCAT, NAFO, NASCO, NPAFC, SPRFMO, WCPFC.
[204] NPFC, SEAFO, SPRFMO.
[205] New Zealand.

organizations, cooperation among the secretariats of some organizations that share the same geographic area or stocks, information-sharing, scientific activities, enforcement, harmonization of measures, including through the establishment of working groups and other mechanisms, and cooperation on a global basis with international organizations in areas of mutual interest, including FAO.

179. The use of formal cooperation mechanisms, such as memorandums of understanding, has increased, although, in general, the priorities, range and effectiveness of such cooperation were not discussed in detail by respondents. The need for enhanced cooperation among regional fisheries management organizations and arrangements in the formulation of rules remains an issue.

Promoting participation in regional fisheries management organizations and arrangements

180. In 2006, the Review Conference recommended the establishment of mechanisms to promote the participation of non-members and the provision of incentives to encourage non-members to join regional fisheries management organizations and arrangements. In 2006 and 2010, it also highlighted the need to address participatory rights in such organizations and arrangements, including through the development of transparent criteria for fishing allocations and by accommodating the interests of new members and developing States.

181. Many States said that they participated actively in the work of regional fisheries management organizations and arrangements.[206] Several also reported taking action to encourage cooperation and/or participation by non-members, including by providing regular funding to the organizations and arrangements to allow for the active participation of developing States[207] and the use of appropriate positive incentives, as well as through bilateral talks.[208]

182. Support was expressed for the development of transparent criteria for the allocation of fishing opportunities and participatory rights based on the best available fisheries science and associated management frameworks, such as harvest strategies with appropriate reference points.[209]

183. The European Union said that it favoured the concept of open membership in regional fisheries management organizations and arrangements, provided that applicant countries could demonstrate their willingness and ability to participate constructively in activities and comply with measures. It also supported the meaningful participation of fishing entities and the necessary changes to constitutive instruments and rules of procedure to that end. In 2015, it changed from a cooperating non-member of CCSBT to a member of its extended commission.

184. The need for regional fisheries management organizations and arrangements and their members to address non-members who failed to cooperate and acted in a manner that undermined conservation and management measures was underlined.[209]

185. Several regional fisheries management organizations and arrangements reported on efforts to engage non-members in their activities and to encourage

[206] Australia, Brazil, Canada, Costa Rica, European Union, Mozambique, Philippines.
[207] European Union, Japan, New Zealand.
[208] Japan.
[209] New Zealand.

membership or cooperation by non-members,[210] including by inviting observers to annual meetings, providing access to markets and allowing increased catch allocation upon full membership.[211] Some cited provisions in their constitutive instruments or mechanisms that encouraged or facilitated the participation of non-members in their work.[212]

186. CCAMLR reported on policies to enhance cooperation with non-contracting parties, including regarding its catch documentation scheme and in combating illegal, unreported and unregulated fishing.

187. NPFC noted that some Governments with fishing interests in the area covered by the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean had shown interest in participating in its work and had joined its meetings.

188. In the light of the foregoing, it appears that progress has been made to encourage the participation of non-members in regional fisheries management organizations and arrangements by various means. Some progress was also reported in improving participation by developing States. There was, however, little information reported on the development of transparent criteria for allocating fishing opportunities, in order to address participatory rights in such organizations and arrangements. The situation thus remains the same as it was in 2010, namely that further efforts are needed to agree on and apply such criteria (see A/CONF.210/2010/INF/1).

Improving decision-making rules and procedures in regional fisheries management organizations and arrangements

189. In 2006, the Review Conference called for measures to ensure that post opt-out behaviour was constrained. It also encouraged the improvement of transparency in regional fisheries management organizations and arrangements, both in terms of decision-making and by allowing intergovernmental and non-governmental organizations to participate.

190. Several States highlighted efforts to improve decision-making processes in regional fisheries management organizations and arrangements, such as by developing or amending dispute resolution mechanisms.[213] Some also stressed the need to prevent opting-out as a way of circumventing conservation measures in organizations and arrangements,[214] and noted the revised objection procedures in some organizations and arrangements, including NAFO, NEAFC and IOTC.[215]

191. Most States expressed support for transparency in decision-making by regional fisheries management organizations and arrangements and the opportunity for reasonable participation by intergovernmental and non-governmental organizations.[216] Australia reported that the rules of procedure of SIOFA allowed for observer attendance and participation, unless a majority of the parties objected. In IATTC, a

[210] CCAMLR, CCSBT, NPFC, SPRFMO.
[211] CCAMLR.
[212] CCAMLR, NPFC, SEAFO, WCPFC.
[213] Australia, Brazil, Canada, European Union, FFA members, Mozambique, New Zealand.
[214] Japan, New Zealand, Norway.
[215] European Union, Mozambique, Norway.
[216] Australia, Brazil, European Union, Japan, New Zealand, Norway, United States.

working group has been tasked with developing a recommendation to update and modernize its rules of procedure.[217]

192. Several regional fisheries management organizations and arrangements reported on their decision-making procedures, including measures or efforts to ensure that post opt-out behaviour was constrained and did not undermine conservation and management efforts.[218] A number also reported on specific dispute resolution procedures or efforts to develop clear processes for dispute resolution.[219]

193. CCAMLR noted that its consensus decision-making process avoided implications associated with opt-outs. GFCM reported that the relevant recommendations from the Review Conference relating to decision-making rules and procedures had been duly reflected in the amendments to its constitutive instrument.

194. IATTC noted that the Antigua Convention prohibited reservations and addressed the applicability of its measures to all members. ICCAT generally operated on a consensus basis, although procedures were in place for dispute resolution. A working group was examining the International Convention for the Conservation of Atlantic Tunas in relation to the adoption of binding recommendations and an objection procedure. NEAFC noted that amendments adopted in 2004, once in force, would establish a dispute settlement procedure and a requirement to explicitly state post-objection intentions. NPFC reported that the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean provided fair and transparent decision-making and dispute settlement rules. SPRFMO noted that its decision-making process (a qualified-majority decision-making procedure coupled with a carefully limited objection procedure) had been used successfully for the first time in 2013.

195. With regard to improving transparency, most regional fisheries management organizations and arrangements reported on efforts to allow for the participation of observers at meetings and to make reports and decisions publicly available.[220] CCSBT reported that observers with long-term observer status received automatic invitations to meetings and that other organizations could apply to attend. CCAMLR noted that the reports of its annual meetings, including those of its subsidiary working groups, were available on its website.

196. IATTC noted that the Antigua Convention provided for the participation of observers, including non-governmental organizations, in its work. NAFO allowed accredited observers to attend meetings of its constituent bodies and made all decisions and meeting information available publicly. The NEAFC rules of procedure were amended in 2013 and included opening its Permanent Committee on Management and Science to observers from non-governmental organizations. WCPFC noted that its rules of procedure provided for the reasonable participation of intergovernmental and non-governmental organizations as observers.

197. On the basis of the responses, it appears that some progress has been made in improving the transparency of regional fisheries management organizations and arrangements, primarily through opportunities for the reasonable participation of

[217] United States.
[218] CCAMLR, GFCM, IATTC, ICCAT, NAFO, NEAFC, NPFC, SPRFMO.
[219] CCAMLR, CCSBT, NAFO, NEAFC, SEAFO, SPRFMO.
[220] CCAMLR, CCSBT, IATTC, IPHC, NAFO, NEAFC, WCPFC.

intergovernmental and non-governmental organizations, and to a lesser extent through the development of clear decision-making procedures.

198. Some progress has also been made in constraining opt-out behaviour in newly established regional fisheries management organizations and arrangements and a few such organizations and arrangements have revised their constitutive instruments or rules of procedure through the adoption of restrictions on States opting out of decisions, combined with strengthened dispute settlement, decision-making procedures, alternative interim measures and other mechanisms.

Establishing new regional fisheries management organizations and arrangements and implementation of interim measures

199. In 2006 and 2010, the Review Conference called for the establishment of new regional fisheries management organizations and arrangements where needed. In 2010, it called upon States to ensure the implementation of interim measures adopted by the participants in negotiations to develop new organizations and arrangements.

200. Since 2010, three new such organizations and arrangements have been established: SIOFA and SPRFMO in 2012 and NPFC in 2015. In addition, a declaration concerning the prevention of unregulated high seas fishing in the central Arctic Ocean was signed by all five coastal States in 2015. The signatories expressed an intention to implement certain interim measures, acknowledged the interest of other States in preventing unregulated high seas fisheries and envisaged a broader process to develop measures that would include commitments by all interested States. The European Union has expressed interest in participating actively in the creation of a management framework for the Arctic high seas.

201. A number of responding States described their role in the establishment and/or functioning of NPFC and SPRFMO.[221]

202. The need to close gaps in the management of straddling and highly migratory species through the establishment of regional fisheries management organizations and arrangements where such bodies did not exist, as well as by expanding the scope of existing organizations, was underlined.[222] WECAFC noted that it was undergoing a strategic reorientation process that could lead to its transformation into a regional fisheries management organization in 2016. Consideration was also being given to the establishment of such a body in the Red Sea and Gulf of Aden.[223]

203. A number of respondents also reported on the implementation of interim measures adopted in the negotiations to develop new regional fisheries management organizations and arrangements that were not yet in force.[224] It was noted in that regard that, during the negotiations for the establishment of SPRFMO, participants had developed and voluntarily implemented interim measures.[225] The negotiations were cited by the European Union as a positive example of how interim voluntary measures could be satisfactorily decided upon and implemented. The United States noted that, during the process of establishing NPFC and SPRFMO, the participants had also put in place mechanisms to implement interim measures.

[221] Australia, Canada, Japan, Mauritius, New Zealand, United States.
[222] European Union.
[223] FAO.
[224] Australia, Canada, European Union, Japan, United States; NAFO, NPFC, SPRFMO.
[225] Australia, European Union.

204. In addition, Japan said that it had implemented its own voluntary measures in relation to the NPFC area, including the closure of some seamounts and a reduction of fishing efforts, to ensure the conservation and sustainable use of marine fisheries resources. The United States indicated that it was pursuing implementing legislation to enable the ratification of and accession to the constitutive instruments of NPFC and SPRFMO, as well as the recent amendment to the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries.

205. On the basis of the responses received, encouraging progress has been made in establishing new regional fisheries management organizations and arrangements, including through the continuing transformation of regional fisheries bodies into organizations and arrangements. Progress has also been reported in the use of interim measures and supportive scientific mechanisms in advance of the entry into force of new such organizations and arrangements.

Effective control by flag States

206. In 2006, the Review Conference called for cooperation to examine and clarify the role of the "genuine link" in relation to the duty of flag States to exercise effective control over vessels flying their flag.

207. A number of States reported on measures taken to ensure effective control of fishing vessels by other flag States.[226] In that regard, support was expressed for the use of the Voluntary Guidelines for Flag State Performance adopted by FAO in 2014 for flag State self-assessment.[227]

208. Australia indicated that it sought the cooperation of flag States in deregistering vessels known to undertake illegal, unreported and unregulated fishing in regional fisheries management organizations and arrangements to which it was a party. Mauritius reported that only vessels on an authorized list were eligible for licences and to use port facilities, while Mozambique noted that under its legal framework flag States were requested to control and have responsibility for their vessels while in its exclusive economic zone.

209. Several regional fisheries management organizations and arrangements reported having taken measures to implement the duty of flag States to exercise effective control over their fishing vessels, including monitoring mechanisms.[228] Some also reported on efforts to address the issue of the "genuine link".[229] CCAMLR reported on measures to combat illegal, unreported and unregulated fishing, including in relation to requiring a "genuine link", and the control of nationals. SEAFO said that it had adopted a system of observation, inspection, compliance and enforcement that detailed flag State duties and applied to all fishing vessels and fishing research vessels operating or intending to operate in its area.

210. According to SPRFMO, fishing vessels were authorized in its area only when the flag State was able to effectively exercise its responsibilities in respect of such vessels, including by maintaining a register and investigating immediately and reporting fully on action to address alleged violations. WCPFC noted a range of

[226] Information regarding the implementation of recommendations for States to improve effective control as flag States is reported in section C, below.
[227] Canada.
[228] CCAMLR, GFCM, ICCAT, NAFO, NEAFC, NPAFC, NPFC, SEAFO, SPRFMO.
[229] CCAMLR, NAFO, NPFC, SPRFMO, WCPFC.

measures to complement and support flag State responsibility, including with regard to the maintenance of a public record of fishing vessels and authorization to fish.

211. Some progress was reported on efforts to improve effective control by flag States over vessels flying their flag, including through national legislation and procedures in place to strengthen the effective control and monitoring, control and surveillance-related mechanisms adopted by regional fisheries management organizations and arrangements. However, very little progress was reported on the examination of the issue of a "genuine link".

Strengthening the fisheries of developing States

212. Information regarding various initiatives undertaken to implement recommendations pertaining to strengthening the fisheries of developing States is reflected in section D below.

2. Conclusions

213. The General Assembly has long recognized the obligation of all States to cooperate in the long-term conservation, management and sustainable use of the living marine resources of the world's oceans and seas and the need for enhanced cooperation to occur at all levels.[230] It has thus urged States to pursue cooperation in relation to straddling fish stocks and highly migratory fish stocks, either directly or through regional fisheries management organizations and arrangements, to ensure the effective conservation and management of those stocks.[231] The Agreement elaborates on the fundamental principle established in the Convention that States should cooperate in taking the measures necessary for the conservation of these resources and identifies regional fisheries management organizations and arrangements as the primary vehicle for cooperation between coastal States and high seas fishing States.

214. As recommended by the Review Conference, cooperation is now being pursued more effectively in the Pacific and the southern Indian oceans through the establishment of new regional fisheries management organizations and arrangements. Steady progress has also been made in strengthening the mandates and measures of organizations and arrangements so that they may fulfil their crucial role in the implementation of the Agreement. The progress has been largely achieved through the performance review process and the implementation of recommendations arising therefrom.

215. Additional efforts are required, however, including undertaking regular performance reviews and strengthening the comprehensiveness of those reviews over time, as urged by the General Assembly,[232] so that regional fisheries management organizations and arrangements can continue to address both existing and new challenges. It will also be important for organizations and arrangements to ensure that information about action taken to implement the recommendations is made publicly available, in order to improve transparency, as recommended by the Review Conference in 2010.

[230] Resolution 70/75, preamble and para. 1.
[231] Ibid., para. 129.
[232] Ibid., paras. 149-151.

216. While cooperation among regional fisheries management organizations and arrangements has also improved at many levels, greater efforts are needed to increase communication and the coordination of measures among them, including through joint consultations, as urged by the General Assembly.[233] Particular focus should be given to the harmonization of measures and the sharing of information to ensure that conservation and management measures and enforcement mechanisms are effective across areas and species of mutual interest.

217. Similarly, while some progress has been made to encourage the participation of non-members in individual regional fisheries management organizations and arrangements, as recommended by the Review Conference, very little progress has been made in the development of transparent criteria for allocating fishing opportunities in order to address participatory rights in organizations and arrangements, in particular those of developing States. The health of fish stocks depends crucially on the degree to which all States with a real interest in the fishery respect the applicable conservation and management measures.

218. In addition to improving transparency, efforts have been made to improve decision-making rules and procedures in regional fisheries management organizations and arrangements, in particular by the newly established organizations, to ensure that conservation and management measures are not undermined. It is hoped that further progress will be made in this regard as organizations and arrangements undertake regular performance reviews and make the results publicly available, as stressed by the General Assembly.[234]

219. As established in the Convention and reaffirmed by the General Assembly, flag States are encouraged to improve effective control and ensure a "genuine link" over fishing vessels flying their flags.[235] While the efforts of the international community in developing guidelines and procedures to assist flag States are important, further efforts are needed by flag States themselves to ensure effective control over vessels flying their flag by applying relevant criteria and self-assessment procedures.

C. Monitoring, control and surveillance, and compliance and enforcement

220. The Agreement provides for flag State enforcement and port State measures. It also sets out a broad and innovative legal regime for cooperation in compliance and enforcement, including through regional fisheries management organizations and arrangements. The Review Conference recognized that effective compliance with, and enforcement of, agreed conservation and management measures, supported by effective monitoring, control and surveillance, was critical to achieving the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks. The recommendations of the Conference made in 2006 and 2010 addressed related issues, such as effective control over vessels, including supply and refuelling; control over fishing activities of nationals; the implementation of compliance and enforcement schemes in regional fisheries management

[233] Ibid., para. 145.
[234] Ibid., para. 150.
[235] Ibid., para. 70.

organizations and arrangements; fisheries access agreements; the International Monitoring, Control and Surveillance Network for Fisheries-Related Activities Network; market-related measures; the development of alternative mechanisms for compliance and enforcement; participation in the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing; the regulation of trans-shipment; and the establishment of a global registry of vessels with a single vessel identification number (see A/CONF.210/2006/15, annex, and A/CONF.210/2010/7, annex).

1. Measures taken at the national and international levels

Strengthening effective control over vessels

221. The failure by some States to effectively control their vessels remains one of the greatest challenges to the implementation of the Agreement. For that reason, the Review Conference recommended in 2006 that States, individually and collectively through regional fisheries management organizations and arrangements, should strengthen effective control over vessels flying their flag.

222. Most States cited national regulations aimed at ensuring the effective control of vessels flying their flag, including licensing schemes for fishing vessels operating on the high seas.[236] Reference was also made to requirements for flag vessels to comply with conservation and management measures put in place by regional fisheries management organizations and arrangements.

223. Most States provided an overview of the monitoring, control and surveillance tools implemented to exercise control over vessels flying their flag and to deter illegal, unreported and unregulated fishing.[237] It was noted that such tools had also been used at the regional level.[238] Monitoring, control and surveillance measures implemented by regional fisheries management organizations and arrangements included regional vessel monitoring systems and observer schemes, boarding and inspection procedures, negative vessel lists, statistical documentation schemes, catch documentation schemes and limitations or prohibitions on at-sea trans-shipment.[239]

224. The European Union ensures that its member States effectively enforce the rules of its common fisheries policy, for example by deducting quotas in case of overutilization of fishing opportunities or for non-respect of applicable rules and by withholding financial assistance when an offence poses a serious threat to conservation or the effective operation of the fisheries control system. Costa Rica has established penalty procedures to address violations of its national regulations. Togo indicated that it provided to international organizations a list of vessels flying its flag whose fishing permits had been revoked because of a violation of national law. FFA noted that its members prohibited vessels from fishing in areas beyond national jurisdiction without authorization and required all vessels flying their respective flags to install a mobile transceiver unit.

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[236] Australia, Canada, European Union, Japan, Mauritius, Mozambique, New Zealand, Norway, Philippines, Togo, United States. See also paras. 206-211.
[237] Canada, European Union, Japan, New Zealand, Norway, United States.
[238] Australia, European Union, Japan, Mauritius, New Zealand, Norway.
[239] European Union, Japan, New Zealand, Norway.

225. Some States highlighted the use of new forms of technology to modernize and increase the effectiveness of the monitoring, control and surveillance tools already in place,[240] for example the use of electronic video monitoring to observe and verify at-sea activities; the use of electronic logbooks, radar satellites and analytical intelligence software;[241] satellite imagery; and unmanned aerial and surface vehicles.[242]

226. Only a few respondents reported on the development of regional monitoring, control and surveillance schemes.[243] For example, Australia reported having contributed to the establishment of a regional plan of action to promote responsible fishing practices, including combating illegal, unreported and unregulated fishing, in South-East Asia. Some States also provided information on the development of national measures and other activities, such as the closure of ports to foreign fishing vessels under specific conditions.[244]

227. While some responding regional fisheries management organizations and arrangements reported on the adoption of measures to address effective control over vessels, including monitoring mechanisms,[245] others considered that the recommendations were directed at States.[246] Support was expressed for the Voluntary Guidelines for Flag State Performance (see paras. 232-237).[247]

228. NAFO requires flag States and contracting parties to notify its secretariat regarding fishing vessels given authorization to fish certain fish stocks. Under the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean, flag States are to maintain a record of authorized fishing vessels and provide information with regard to each vessel. Under the NEAFC and SPRFMO instruments, contracting parties are to authorize fishing vessels to engage in fishing activities only where they are able to exercise their responsibilities effectively in respect of the vessel.

229. As indicated in paragraph 209, SEAFO has adopted a system of observation, inspection, compliance and enforcement applicable to all fishing vessels and fishing research vessels operating or intending to operate in the area under its auspices.

230. WCPFC noted a range of measures to complement and support flag State responsibility, including with regard to the maintenance of a public record of fishing vessels and authorizations to fish.

231. On the basis of the responses received, which included only limited information regarding measures introduced since 2010, it is difficult to assess progress in this area. It does appear, however, that some progress has been made in strengthening effective control over vessels.

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[240] Australia, Canada, European Union, New Zealand.
[241] Canada.
[242] See www.imcsnet.org/wp-content/uploads/2012/03/Maritime-Electronic-Tools-ARTFINALv4.pdf.
[243] Australia, European Union, Norway.
[244] Japan, Qatar.
[245] CCMLR, CCSBT, IATTC, ICCAT, GFCM, NAFO, NEAFC, NPAFC, NPFC, OSPESCA, SEAFO, SPRFMO.
[246] IPHC, WCPFC.
[247] GFCM.

Assessment of flag State performance

232. In line with the recommendation of the Review Conference in 2010 to develop, through FAO, a set of criteria for assessing the performance of flag States in carrying out their responsibilities in that capacity, the Voluntary Guidelines for Flag State Performance were endorsed by the FAO Committee on Fisheries in 2014.

233. Most States welcomed the adoption of the Guidelines,[248] with some indicating that they had supported and encouraged their use.[249] However, only Norway noted that it had examined its performance against the criteria of the Guidelines; that examination had revealed a need to amend some of its legislation relating to flag State duties.

234. Some States reported on measures taken to trigger and encourage action by other States in their role as flag States once violations occurred.[250] Australia noted that it had reported illegal, unreported and unregulated vessels to flag States, requesting them to confirm whether such a vessel appeared in their respective registry and, if it did, encouraging them to take responsibility for it, including deregistering it as appropriate.[251]

235. The European Union regulation to prevent, deter and eliminate illegal, unreported and unregulated fishing (Council Regulation (EC) No. 1005/2008) requires, among other things, all flag States to discharge their duties incumbent upon them under international law as flag States. In addition, if States do not respect the rules established by international law as a flag, coastal, port or market State and refuse to cooperate with the Union in efforts to combat illegal, unreported and unregulated fishing they risk being listed by the Union as non-cooperating third countries and no longer being able to trade fish with the Union.

236. Some States reported having implemented the certification requirements under the aforementioned European Union regulation in order to certify the legitimacy of catch.[252]

237. On the basis of the responses received, there appears to be broad support for the use of the Guidelines, however, only one State reported on action taken to implement the Guidelines.

Participation in the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing and the adoption of port State measures

238. In 2010, the Review Conference recommended encouraging States to consider becoming party to the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. The instrument has not yet entered into force, but is expected to do so in the foreseeable future. As at 1 March 2016, 22 of the required 25 instruments of consent to be bound had been deposited.

239. Most responding States expressed support for the Agreement on Port State Measures, and some indicated being signatories thereto[253] or having deposited an

[248] Canada, European Union, Japan, New Zealand, Norway, United States.
[249] Canada, European Union, United States.
[250] Australia, European Union.
[251] Australia.
[252] Mozambique, New Zealand, Philippines.

instrument of consent to be bound.[254] FFA noted, however, that, while all its members upheld the objectives of the instrument, some preferred a risk-based approach to implementation rather than one that taxed the capacity of small island developing States to implement it effectively.

240. Some States[255] reported on their efforts to encourage others to become parties to the Agreement on Port State Measures by directly providing capacity-building to developing States or by making financial contributions to FAO for capacity-building. APFIC and OSPESCA have directly supported developing States to implement port State measures. APFIC, NEAFC and WECAFC also indicated that they had been actively supporting FAO in promoting the implementation of the instrument, including by organizing or taking part in regional workshops. FAO has a broad capacity-building programme in support of the instrument, including regional workshops.

241. In 2010, the Review Conference also encouraged States to adopt port State measures consistent with the Agreement on Port State Measures through regional fisheries management organizations and arrangements. NEAFC reported that amendments aligning its port State control system with the provisions of the Agreement on Port State Measures had entered into force on 1 July 2015. Similarly, SPRFMO noted that its minimum standards of inspection in port referenced that instrument. NAFO has been conducting a major revision of its port State measures to better align them with the instrument. Other regional fisheries management organizations and arrangements also reported on proposals under negotiation in order to adopt port State measures or align existing measures with the instrument.[256] CCSBT and ICCAT indicated having adopted minimum standards for port inspections in 2015 and 2012, respectively, without specifying whether they were consistent with the instrument.

242. On the basis of the responses received, some States, regional fisheries management organizations and arrangements and FAO are providing solid support to developing States in becoming party to the Agreement on Port State Measures and in its implementation. However, the responses of organizations and arrangements concerning the implementation of port State measures consistent with the instrument were limited and tended to focus on the content of their respective conservation measures.

Control over fishing activities of nationals

243. In 2006, the Review Conference recommended strengthening, consistent with national law, domestic mechanisms to deter nationals and beneficial owners from engaging in illegal, unreported and unregulated fishing activities. Building on that recommendation, in 2010 it recommended that States should control the fishing activities of their nationals, to the extent possible, that undermined the effectiveness of conservation and management measures adopted in accordance with international law and take measures and cooperate to ensure compliance by their nationals.

[253] Canada, United States.
[254] Australia, European Union, New Zealand, Norway.
[255] Australia, Canada, European Union.
[256] GFCM, IATTC, WCPFC.

244. Several States reported on national legislation applicable to the fishing activities of nationals and/or beneficial owners, including investigations of alleged violations of conservation and management measures and sanctions if proven.[257] The United States noted that it utilized the International Criminal Police Organization's global network and notices system to spotlight illegal, unreported and unregulated vessels, apprehend international fugitives and assist other countries in combating illegal, unreported and unregulated fishing. Brazil noted that it maintained a system of registration of professional fishers in order to control the fishing activities of its nationals.

245. The responses received were in substance similar to those contained in the reports submitted to the Review Conference in 2006 and 2010. It was therefore difficult to ascertain progress in the implementation of the recommendations concerning the control of fishing activities of nationals.

Strengthening compliance, cooperation and enforcement schemes in regional fisheries management organizations and arrangements

246. In 2006 and 2010, the Review Conference highlighted the importance of compliance and enforcement schemes at the regional level and recommended that States should ensure that all vessels fishing on the high seas carried vessel monitoring systems as soon as practicable and annually assess compliance by members with measures taken by regional fisheries management organizations and arrangements.

247. In addition to highlighting existing compliance and enforcement schemes in regional fisheries management organizations and arrangements,[258] some States indicated that they were actively involved in negotiating new measures consistent with the Agreement in several organizations and arrangements.[259] One example given was the Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region, an agreement that allowed coordinated monitoring, control and surveillance activities[260] and exchange of information relevant to monitoring, control and surveillance (including licensing, location and movement of foreign fishing vessels) among parties.[261]

248. National and regional initiatives to enhance monitoring, control and surveillance, including the implementation of measures adopted by regional fisheries management organizations and arrangements, were also highlighted.[262] Most States reported that they required categories of their flagged vessels fishing on the high seas to carry a vessel monitoring system, including through the implementation of measures put in place by regional fisheries management organizations and arrangements, or were implementing such a requirement.[263] GFCM noted a need to test recognized alternatives to vessel monitoring systems, in particular for small-scale vessels which could be monitored with less-costly technology.

[257] Australia, European Union, Japan, New Zealand, Norway, Philippines, United States.
[258] Australia, Canada, Costa Rica, European Union, Japan, Mauritius, Mozambique, New Zealand, Norway, Philippines, United States.
[259] Australia, Canada, New Zealand, Norway.
[260] New Zealand.
[261] See www.ffa.int/niue_treaty.
[262] Australia, Japan, New Zealand.
[263] Australia, Canada, European Union, Japan, Mauritius, Mozambique, New Zealand, United States.

249. A number of regional fisheries management organizations and arrangements also reported implementing schemes to assess compliance with the obligations arising under international agreements.[264] For example, IATTC has established a committee to review the implementation of its measures. In 2012, CCAMLR adopted a compliance evaluation procedure to evaluate members' implementation and compliance status. In GFCM, effective control by flag States is examined annually. The NEAFC Permanent Committee on Control and Enforcement annually examines the performance of contracting parties in controlling their vessels.

250. Some States reported on their contributions to regional cooperation in compliance and enforcement,[265] for example information-sharing among signatories to the Regional Plan of Action to Promote Responsible Fishing Practices, including Combating Illegal, Unreported and Unregulated Fishing, in the Region (South-East Asia), as well as among relevant States, including port and flag States, in order to strengthen international compliance and enforcement efforts against illegal, unreported and unregulated fishing.

251. On the basis of the responses received, it was not possible to assess the actual impact of reported schemes and measures. In particular, the effectiveness of compliance review processes was not elaborated upon. In his report submitted in 2010, the Secretary-General had already noted the broad use of mandatory vessel monitoring systems (A/CONF.210/2010/1, para. 318), but the responses received did not indicate any significant progress. In addition, responding States and regional fisheries management organizations and arrangements reported varying requirements and systems.

Development of alternative mechanisms for compliance and enforcement in regional fisheries management organizations and arrangements

252. In 2006, the Review Conference recognized that the development within regional fisheries management organizations and arrangements of alternative mechanisms for compliance and enforcement in accordance with article 21 (15) of the Agreement could facilitate accession to the Agreement by some States.

253. Several States expressed support for such alternative mechanisms as part of a comprehensive and effective monitoring, control and surveillance regime.[266]

254. Australia noted that it had implemented electronic monitoring in its pelagic longline fisheries, which complemented and verified other monitoring techniques, as well as a deterrence strategy that communicated the potential dangers of working on an illegal, unreported and unregulated fishing boat.

255. IATTC reported on a recent resolution requiring its secretariat to transmit the IATTC illegal, unreported and unregulated vessel list as soon as possible to other regional fisheries management organizations and arrangements to enhance cooperation aimed at preventing, deterring and eliminating illegal, unreported and unregulated fishing. ICCAT has a boarding and inspection scheme in place only for the eastern Atlantic and Mediterranean bluefin tuna fishery and had adopted other monitoring, control and surveillance measures for other fisheries.

[264] CCAMLR, CCSBT, IATTC, ICCAT, NAFO, NEAFC, SEAFO, SPRFMO, WCPFC.
[265] Australia, Canada, New Zealand.
[266] Canada, European Union, United States.

256. GFCM has been running a pilot study for the establishment of a regional control system to ensure that even those contracting parties without a fishing monitoring centre can perform monitoring, control and surveillance activities. SEAFO agreed upon measures for at-sea inspection in 2013. NEAFC reported on the adoption of a system of boarding and inspections.

257. The responses received appear to indicate that, while there is broad support for the idea of developing alternative mechanisms for compliance and enforcement, there has been little progress in the implementation of the recommendation, thus mirroring the information reported in 2010 (see A/CONF.210/2010/1, para. 410).

Regulation of trans-shipment, supply and refuelling vessels

258. In 2010, the Review Conference recommended that States should strengthen measures put in place by regional fisheries management organizations and arrangements to monitor and regulate trans-shipment activity, in particular by considering stronger rules relating to trans-shipment at sea.

259. Several States[267] reported on the adoption of stringent measures to regulate trans-shipment, in particular at sea, and to prohibit supply and refuelling vessels from engaging in operations with vessels included on negative vessel lists.

260. Several States[268] referred to national laws or mandatory regional regulations regulating trans-shipment, with a number generally prohibiting trans-shipment at sea. Japan reported that landing or trans-shipment by fishing vessels flying its flag at foreign ports required prior notification. Some States expressed support for more stringent regulation of trans-shipment activity in regional fisheries management organizations and arrangements.[269]

261. A number of States[270] also reported on measures adopted by regional fisheries management organizations and arrangements concerning trans-shipment. For example, ICCAT has established a record of carrier vessels and conditions for at-sea trans-shipment, such as flag State authorization, notification procedures and regional observer programmes. In NAFO and NEAFC, only authorized vessels can engage in trans-shipment operations.

262. A number of regional fisheries management organizations and arrangements reported on measures adopted concerning trans-shipment.[271] For example, CCSBT indicated that its programme for monitoring trans-shipments at sea, in place since 2009, had been revised to include requirements for monitoring trans-shipments in port as at 1 January 2015.

263. On the basis of the responses received, it can be concluded that robust measures have been adopted to regulate trans-shipment, in particular at sea, including through legislation, prohibition of at-sea and/or species-related trans-shipments, port inspections, authorization and notification procedures and verification measures, in line with the recommendations made in 2006 and 2010. There was, however, insufficient information to enable an assessment of progress since 2010 or the

[267] Australia, Canada, European Union, FFA members, Japan, Mozambique, New Zealand, United States.
[268] Canada, Mauritius, European Union, FFA members, Mozambique, Philippines, United States.
[269] Canada, European Union, New Zealand.
[270] Australia, Canada, FFA members, New Zealand, Norway.
[271] CCAMLR, CCSBT, GFCM, IATTC, ICCAT, NAFO, NEAFC, NPFC, SEAFO, SPRFMO, WCPFC.

impact of current measures. There appears to be broad support for the adoption of increasingly stringent measures to prohibit or regulate at-sea trans-shipment, including through catch documentation schemes, by regional fisheries management organizations and arrangements. A practical challenge continues to be to ensure that current information on negative vessel lists is provided to relevant supply and refuelling vessels. There were some instances of reporting on measures to prohibit supply and refuelling vessels, without much detail as to the content of the measures.

Strengthening fisheries access agreements

264. In 2006, the Review Conference recommended that fisheries access agreements should be strengthened to include assistance for monitoring, control and surveillance, within areas under the national jurisdiction of the coastal State providing fisheries access. Some States noted that that recommendation was not applicable to them because fishing was restricted to vessels flying their respective flags or because there were no specific agreements in place.[272]

265. Mauritius indicated that it had fisheries access agreements with the European Union, Japan and Seychelles. The Philippines reported having engaged in talks with some States on the possible conclusion of such agreements.

266. The European Union stated that its bilateral fisheries agreements with third countries helped to promote long-term resource conservation, good governance and the sustainable development of its partners' fisheries sectors. Norway indicated that it had entered into reciprocal access agreements with its neighbouring coastal States, which included obligations concerning monitoring, control and surveillance, but had not entered into any access agreements with developing countries.

267. WCPFC noted that it had received proposed measures relating to fisheries access agreements, which had not yet been agreed upon. ICCAT indicated that it had adopted a binding measure on the reporting of bilateral access agreements.

268. Given the limited number of responses on the issue, it was difficult to assess the extent of progress since 2010.

Market-related measures

269. In 2010, the Review Conference recommended that States should prevent illegally harvested fish or fish products from entering into commerce through the greater use and better coordination of catch documentation schemes and other market-related measures, strengthen law enforcement cooperation and facilitate the commerce in fish or fish products caught sustainably.

270. Some States identified themselves as active participants in the FAO process to establish voluntary international guidelines for catch documentation schemes.[273]

271. Several States reported on the implementation of market-related measures, including catch documentation or certification schemes, under their national legislation.[274] Canada said that it had, as part of national legislation to implement the Agreement on Port State Measures, created new import prohibitions on fish and marine plants taken, harvested, possessed, transported, distributed or sold contrary

[272] Australia, Brazil, Canada, Costa Rica.
[273] New Zealand, Norway.
[274] Australia, Brazil, Canada, European Union, Japan, Mauritius, New Zealand, Norway.

to an international fisheries treaty or arrangement to which it was party, including any conservation, management or enforcement measures taken under the treaty or arrangement; any conservation or management measures of a fisheries management organization of which it was not a member that was prescribed by regulation; or a law relating to fisheries of a foreign State. The European Union reported that under its regulation to prevent, deter and eliminate illegal, unreported and unregulated fishing, all fishery products entering the Union needed to be accompanied by a catch certificate validated by a competent public authority of the vessel's flag State.

272. Japan reported that species such as bluefin tuna, southern bluefin tuna, bigeye tuna and swordfish were allowed to be imported into the country only after confirmation that they had been caught by vessels on positive vessel lists. The use of an electronic interface for the submission of trade data by the private sector and the extraction of trade data by government users was also reported.[275] Australia noted that it was funding work with Pacific island countries to assist in the development of a regional traceability scheme for highly migratory species.

273. Support was expressed for the development of best practice guidelines on traceability[276] and on a catch documentation scheme.[277] Some States reported on the development and implementation of catch documentation schemes by regional fisheries management organizations and arrangements.[278] ICCAT reported that an electronic catch documentation scheme system was currently under development.

274. A group of States expressed support for the introduction of a global catch certificate and the improvement of catch documentation schemes under regional fisheries management organizations and arrangements or the introduction of certification schemes by such organizations and arrangements, given that they considered such trade-related measures necessary for reducing or eliminating trade in fish and fish products derived from illegal, unreported and unregulated fishing activities.[279]

275. On the basis of the responses received, there appears to be significant activity on the issue in regional fisheries management organizations and arrangements through the expansion of catch documentation or certification programmes and traceability schemes and increasing related requirements. Support was expressed for the introduction of best practice guidelines on traceability, a global catch certificate and the improvement or introduction of catch documentation and certification schemes by organizations and arrangements. In general, organizations and arrangements appear to be continuing to strengthen market-based measures and States are making some progress in implementing the measures and preventing illegally caught fish from entering commerce.

Participation in and support to the International Monitoring, Control and Surveillance Network for Fisheries-Related Activities Network

[275] United States.
[276] Canada.
[277] Norway.
[278] Canada, Japan, New Zealand, United States.
[279] European Union.

276. In 2010, the Review Conference recommended that States should consider joining the International Monitoring, Control and Surveillance Network for Fisheries-Related Activities Network.

277. Several States and regional fisheries management organizations and arrangements reported on their participation in and active support of the Network and expressed support for its enhancement,[280] including by hosting, co-organizing and attending workshops. For example, WCPFC noted its contribution to training events concerning the Network. FAO has supported the Network, including through the holding of its fourth Global Fisheries Enforcement Training Workshop, in 2014.

278. NAFO noted that its membership in the Network was being discussed. ICCAT stated that, while it was not a member of the Network itself, many of its contracting parties had joined individually.

279. OSPESCA reported on the future establishment of a regional network for States members of the Central American Integration System.

280. On the basis of the responses received, it could be concluded that States and regional fisheries management organizations and arrangements appear to be generally implementing the recommendations made in 2006 and 2010. It was, however, difficult to assess from the information provided whether joining the Network has already had an impact on fisheries-related monitoring, control and surveillance activities.

Participation in the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas and cooperation on the development of a global record of fishing vessels

281. In 2006 and 2010, the Review Conference recommended the promotion of universal acceptance of the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement), as well as cooperation with FAO to develop a comprehensive global register of fishing vessels, including refrigerated transport and supply vessels, and to expedite efforts through FAO, in cooperation with the International Maritime Organization, to create a unique vessel identifier system.

282. Some States reported on their acceptance and implementation of the Compliance Agreement.[281]

283. As regards the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels, FAO co-sponsored a proposal agreed upon by IMO in 2013 to include fishing vessels of 100 GT or more in the IMO Ship Identification Number Scheme.[282] In 2014, the FAO Committee on Fisheries agreed that the IMO number should be used as the Global Record's unique vessel identifier for the first phase. FAO organized the first meeting of the Global Record Informal Open-ended Technical and Advisory Working Group in 2015.

284. There was broad support by States for the development of a comprehensive global record,[283] which would incorporate all available information on beneficial

[280] Australia, Canada, European Union, New Zealand, Norway, Philippines, Togo, United States.
[281] Australia, Japan, New Zealand, United States.
[282] FAO.
[283] Australia, Canada, European Union, Japan, New Zealand, United States.

ownership, subject to confidentiality requirements in accordance with national law. Canada indicated that it supported a gradual, phased-in approach to the initiative, in order to manage costs and encourage its development and implementation. There was also extensive support for the use of IMO numbers as the unique vessel identifier for categories of fishing vessels.[284]

285. The European Union reported that it had already taken action to improve its fishing fleet register to record IMO numbers. It expected that, from 1 January 2016, the IMO ship identification number would be made mandatory for Union fishing vessels, or fishing vessels controlled by Union operators under a chartering arrangement.

286. IATTC reported that, effective 1 January 2016, cooperating non-members would be required to provide IMO or Lloyd's Register numbers for all fishing vessels of 100 GT or 100 GRT and above. WCPFC and CCSBT data from their records of fishing vessels were regularly provided to the global Consolidated List of Authorized Vessels.

287. On the basis of the responses received, there appears to be broad acceptance and implementation of the Compliance Agreement among respondents, but only one State has become party thereto since 2010. There was also broad support for the FAO initiative to develop a comprehensive global record of fishing vessels, refrigerated transport vessels and supply vessels. Several tuna regional fisheries management organizations have established cooperative processes to develop unique vessel identifiers and a global record for tuna vessels.

2. Conclusions

288. As was previously the case, most States reported on legislative mechanisms and other monitoring, control and surveillance tools used to strengthen effective control over vessels flying their flag, but the information available to assess progress since 2010 was insufficient. In the same vein, when reporting on control over fishing activities of nationals, responses were similar in substance to those submitted in 2006 and 2010.

289. One of the major challenges in the area of fisheries continues to be the enforcement of flag State duties. While some progress has been made, further efforts are needed to implement or strengthen effective flag State control, including through application of the criteria and self-assessment procedures set out in the Voluntary Guidelines for Flag State Performance. While the potential of the Guidelines is significant, there was little indication as to whether they have been in fact used by States or regional fisheries management organizations. Expanded and deepened commitment to the effective implementation of assessment of flag State performance, as encouraged in the Guidelines, may be needed, as may the development of steps to address persistent failures to carry out flag State responsibilities.

290. Furthermore, while not specifically addressed in the recommendations made in 2006 and 2010, it is important to note that ineffective flag State implementation can affect labour conditions aboard fishing vessels. The General Assembly has welcomed the ongoing cooperation between FAO and the International Labour

[284] Australia, Canada, European Union, Mozambique.

Organization in relation to decent work and employment in fisheries and on child labour in fisheries, in addition to the work conducted by the United Nations Office on Drugs and Crime and the International Labour Organization on the issue of trafficking in persons and forced labour on fishing vessels.[285]

291. The General Assembly has urged States, individually and through regional fisheries management organizations and arrangements, to adopt and implement internationally agreed market-related measures in accordance with international law, including principles, rights and obligations established in WTO agreements, as called for in the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.[286] Broader action on the development of best-practice guidelines for catch documentation schemes and traceability, as welcomed by the Assembly,[287] may be needed to further advance and strengthen market-related measures.

292. As noted by the Secretary-General in 2010, the adoption of the Agreement on Port State Measures was a culmination of broad-based cooperation by the international community to identify minimum standards. Some regional fisheries management organizations reported on the adoption of port State measures. Nevertheless, the instrument still has a limited participation and therefore is not yet in force. In that regard, the General Assembly has recognized the need for enhanced port State measures and encouraged States and regional economic integration organizations to consider becoming party to the instrument.[288]

293. The development of alternative mechanisms within regional fisheries management organizations for compliance and enforcement was addressed only cursorily. A focus on the development of alternative mechanisms could be further encouraged and strengthened. There were also very few responses on initiatives to strengthen fisheries access agreements as a means for assistance in monitoring, control and surveillance, compliance and enforcement.

294. There is a great deal of awareness of the benefits from and general support for the International Monitoring, Control and Surveillance Network for Fisheries-Related Activities Network and the Compliance Agreement and, in that respect, there appears to be potential for wider participation, as called for by the General Assembly.[289] There is also broad support for the initiative to develop a comprehensive global record of fishing vessels, refrigerated transport vessels and supply vessels. The Assembly welcomed the continued development of the initiative,[290] and thus the future recommendations of the Review Conference could add to the momentum towards expedited completion of the work.

D. Developing States and non-parties to the Agreement

295. Part VII of the Agreement addresses the requirements of developing States, including the recognition of the special requirements of developing States, forms of

[285] Resolution 70/235, para. 101.
[286] Resolution 70/75, para. 80.
[287] Ibid., para. 81.
[288] Ibid., paras. 72-73.
[289] Ibid., paras. 53 and 100.
[290] Ibid., para. 94.

cooperation with developing States and special assistance in the implementation of the Agreement. The Agreement also contains provisions regarding the encouragement of non-parties to become parties and the deterrence of activities by vessels flying the flag of non-parties which undermine the effective implementation of the Agreement, as well as non-members of and non-participants to regional fisheries management organizations and arrangements.

296. In 2006 and 2010, the Review Conference adopted recommendations aimed at promoting wider participation in the Agreement, building the capacity of developing States to participate in high seas fisheries and effectively implement the Agreement, avoiding impacts on subsistence, small-scale and artisanal fishers and women fishworkers, in addition to indigenous peoples in developing States, and mainstreaming capacity-building efforts for fisheries.

1. Measures taken at the national and international levels

Activities to promote wider participation in the Agreement

297. In 2006 and 2010, the Review Conference adopted recommendations calling upon States with an interest in fisheries for straddling fish stocks and highly migratory fish stocks to become parties to the Agreement. It also recommended disseminating information on the Agreement and exchanging ideas on ways to promote further ratifications through a continuing dialogue with non-parties.

298. Several States parties highlighted the importance that they ascribed to the Agreement and increasing participation therein.[291] It was noted that broader participation would contribute to the increased implementation of the Agreement and achievement of its objectives and also strengthen cooperation among fishing nations.[291] Several States indicated that they were encouraging others to become parties to the Agreement through bilateral[292] or multilateral[293] channels, including through multilateral forums such as the informal consultations of States parties to the Agreement,[294] the Southern African Development Community, the Southwest Indian Ocean Fisheries Commission, IOTC and the African Union.[295]

299. At the Review Conference in 2006 and 2010, as well as during the continuing dialogue held as part of the ninth round of informal consultations of States parties to the Agreement, delegations discussed issues that prevented some States from becoming parties to the Agreement.[296] The need to continue the dialogue with those States that might consider joining the instrument in the future,[297] including addressing concerns regarding particular articles,[298] as well as working to enhance their understanding of the Agreement and its implementation, was also raised.[299] Some States described particular initiatives aimed at promoting participation.[300]

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[291] European Union, Norway.
[292] Canada, New Zealand, Norway, United States.
[293] New Zealand, Norway.
[294] Japan.
[295] Mozambique.
[296] See A/CONF.210/2006/15, paras. 34 and 123-128; A/CONF.210/2010/7, paras. 111-113; and ICSP8/UNFSA/REP/INF.6.
[297] European Union.
[298] United States.
[299] New Zealand.
[300] Australia, Mozambique, United States.

300. SPRFMO and WCPFC noted how the implementation of the Agreement through their organizations could be considered to be promoting participation. WECAFC said that it had adopted a resolution aimed at increasing participation in the Agreement (WECAFC/12/2012/1). It considered that brochures and dedicated training sessions for small island developing States, to show the costs of and benefits from participation in the Agreement and its implementation, were urgently required. GFCM suggested considering initiatives to raise awareness and promote a better understanding of the scope and content of the Agreement itself.

301. From the foregoing, it appears that efforts made by several States and regional fisheries management organizations and arrangements to encourage and promote further participation in the Agreement have been only partially effective, given that only five additional States have become parties to the Agreement since 2010. The current number of 82 States parties, including the European Union, while significant, still falls far short of the goal of universal participation called for by the General Assembly.

Identification of the capacity-building needs of developing States

302. In 2006 and 2010, the Review Conference encouraged the identification of strategies that would further assist developing States to realize a greater share of benefits from relevant fisheries, recommended that the compilation of available sources of funding for developing States should be kept readily available and up to date and recommended cooperation with developing States to strengthen national and regional fisheries management.

303. The compilation of sources of available assistance for developing States and the needs of developing States for capacity-building and assistance in the conservation and management of straddling fish stocks and highly migratory fish stocks was developed in 2007, pursuant to a request made during the seventh round of informal consultations of States parties to the Agreement. It was updated in 2009 and remains available on the website of the Division for Ocean Affairs and the Law of the Sea of the Secretariat.[301] The compilation, among other things, provides information on the needs of developing States communicated to the Secretariat. No request for further updates was made by the General Assembly.

304. Several States reported on action to identify the capacity-building needs of developing States, through bilateral dialogue and regional and subregional organizations.[302] Needs were also reflected in regional instruments, such as the Regional Roadmap for Sustainable Pacific Fisheries and the "New Song for Coastal Fisheries: Pathways to Change — the Noumea Strategy".[303]

305. Some regional fisheries management organizations and arrangements provided information on mechanisms to assess the needs of developing-State members.[304] Tools included capacity-building needs assessments,[305] invitations to developing States to provide information on needs to be taken into account in capacity-building,[306] checklists of special requirements of small island developing States[307]

[301] See www.un.org/Depts/los/convention_agreements/fishstocksmeetings/compilation2009updated.pdf.
[302] European Union, New Zealand.
[303] Australia.
[304] GFCM, ICCAT, OSPESCA, WECAFC, WCPFC.
[305] WECAFC.
[306] ICCAT.

and identification through compliance monitoring schemes.[308] Identified needs are taken into account by WCPFC in the development and adoption of conservation and management measures. In GFCM, where lack of compliance results from the capacity-building needs of members and cooperating non-parties, technical assistance is tailored to their specific needs.

306. One of the primary objectives of FFA is the identification of the capacity-building needs of its developing-State members, and their articulation through regional strategies, such as that entitled "Future of Pacific island fisheries" and through, among others, WCPFC. It also coordinated a region-wide capacity-development programme listing and addressing priority needs in terms of administration, operations, surveillance and management, as well as legal and policy needs.[309]

307. Some more specific needs were also identified by States, including infrastructure development (e.g. research vessels and basic port infrastructure),[310] training courses and workshops to develop the required skills in fisheries management in the long and short terms, awareness-raising of safety procedures for small-scale and artisanal fishers, through training and development programmes, and the creation of seasonal jobs relating to fisheries to generate livelihoods for the poor during fishing seasons.[311] It was suggested that a clear funding policy to address capacity-building needs was necessary.[311] It was also noted that the lack of national capacity could be mitigated to a certain extent in the Pacific region through collaboration, agreement on common standards and pooling of services and skills.[312]

308. Needs identified by regional fisheries management organizations and arrangements included improving national capacity to achieve robust, science-based fisheries management capable of addressing social issues; national systems for vessel licensing and capacity management, capable of addressing multi-species, multi-gear complex fisheries;[313] training on international fisheries governance; interdisciplinary evaluation of fisheries (biological, economic and social perspective);[314] capacity-building for scientists;[315] improved conservation and management of fishery resources through collection, reporting, verification, exchange and analysis of fisheries data and related information, stock assessment and scientific research; monitoring, control and surveillance, compliance and enforcement, including training and capacity-building at the local level;[316] development, training and funding of national and regional observer programmes;[317] and access to technology and equipment.[318] ICCAT noted challenges in complying with international requirements as a result of lack of personnel (owing to lack of

[307] WCPFC.
[308] CCSBT, WCPFC.
[309] Australia.
[310] Mozambique.
[311] Qatar.
[312] FFA members.
[313] APFIC.
[314] OSPESCA.
[315] SEAFO.
[316] GFCM, SPRFMO. It was noted that improved monitoring, control and surveillance capacity could facilitate increased participation in the Agreement.
[317] SEAFO, SPRFMO.
[318] SPRFMO.

funds and qualifications or training) and the increasing complexity of the requirements of regional fisheries management organizations.

309. On the basis of the foregoing, it appears that various activities have been undertaken by States and regional fisheries management organizations and arrangements with a view to assessing the capacity-building needs of developing States. It was not, however, possible to assess to what degree the needs identified were guiding the focus of current or planned capacity-building initiatives.

Providing assistance to developing States in the implementation of the Agreement

310. In 2010, the Review Conference recommended that assistance should be provided to developing States to implement the Agreement, especially in certain areas.

311. Several States reported on assistance provided, bilaterally or multilaterally through regional organizations, arrangements or initiatives, to developing States to implement the Agreement effectively. In that regard, assistance was provided through, among others, FFA,[319] the International Monitoring, Control and Surveillance Network for Fisheries-Related Activities Network and ICCAT,[320] the Southeast Asian Fisheries Development Center and WCPFC,[321] and SPC.[322] Considerable capacity-building is also undertaken by FAO. Some States highlighted their contributions to trust funds in regional fisheries management organizations and arrangements.[323] Reference was made to the Southern African Development Community Protocol on Fisheries,[324] adopted in 2001, which included economic and technical cooperation to maximize the benefits of fisheries and aquaculture for Southern African countries.[325] The assistance provided through the EAF-Nansen Project was noted.[326] A call was made for clear annual statistics on the status of relevant fish stocks so as to forecast the potential support to developing States.[327]

312. Several States highlighted assistance provided to developing States bilaterally.[328] Such assistance was aimed at, among other things, monitoring, control and surveillance and enforcement,[329] legislative action to give effect to regional arrangements[330] and sustainable fisheries development.[331] For example, IOTC has initiated a project to incorporate conservation and management measures into the legislation of 10 members and cooperating non-contracting parties.[332]

313. Several regional fisheries management organizations and arrangements reported having taken measures to assist developing States in the implementation of

[319] Australia, FFA members, New Zealand.
[320] Canada.
[321] Japan.
[322] New Zealand.
[323] Japan.
[324] See www.sadc.int/files/5613/5292/8363/Protocol_on_Fisheries2001.pdf.
[325] Mozambique.
[326] Norway. See www.fao.org/in-action/eaf-nansen/en.
[327] Qatar.
[328] Australia, European Union, Japan, Mozambique, New Zealand, Norway, United States.
[329] Australia, European Union, Mozambique, United States.
[330] Australia.
[331] Japan, New Zealand.
[332] See http://iotc.org/sites/default/files/documents/compliance/Report_Review_of_active_IOTC_Resolutions_and_legislative_framework_FINAL.pdf.

the Agreement.[333] Some referred to provisions in their constitutive instruments that recognized the special requirements of developing States, including small island developing States.[334] Provisions for taking into account the capacity of developing States in the financial contribution formula for the budget[335] and including their special needs as an item in the agendas of official meetings[336] were also highlighted.

314. On the basis of the foregoing, it appears that progress has been made through the establishment of assistance programmes by some States to assist developing States in the development and management of their fisheries, covering a wide range of activities. Assistance is provided bilaterally, through regional fisheries management organizations and arrangements or through sustainable fisheries partnership agreements. Several organizations and arrangements also reported on measures to assist developing States, including the establishment of funds, mainly directed at strengthening the implementation of the measures put in place by the organizations and arrangements consistent with the Agreement. No specific reference was made to assistance through the transfer of technology, as set out in article 25 of the Agreement.

Enhancing the participation of developing States in high seas fisheries

315. In 2006 and 2010, the Review Conference adopted recommendations aimed at enhancing the participation of developing States in regional fisheries management organizations and arrangements, including facilitating access to fisheries, and facilitating greater participation in high seas fisheries to receive greater benefits, develop their own fisheries and improve their market access.

316. Several States highlighted the value that they attributed to the participation of developing States in regional fisheries management organizations and arrangements and other treaty arrangements.[337] FFA members reported that one of the primary objectives of FFA was to enhance the participation of its member States as coastal States in regional fisheries management organizations and arrangements and subregional organizations.

317. Several States reported on measures taken to facilitate the participation of developing States in the work of regional fisheries management organizations and arrangements and other bodies, including through financial contributions to the Benguela Current Commission, FFA, IATTC, ICCAT, IOTC, SEAFO, SPRFMO and WCPFC.[338] Australia indicated that it worked to ensure that measures adopted by such organizations and arrangements, including those relating to access and allocation, took into account the sovereign rights and development aspirations of developing States.

318. Several regional fisheries management organizations and arrangements have taken measures to enhance the participation of developing States in their work and the implementation of their measures, such as assistance in designing and strengthening their national regulatory fisheries policies and those of regional

[333] APFIC, GFCM, IATTC, OSPESCA, SEAFO, WCPFC, NEAFC.
[334] SEAFO (art. 21), SPRFMO (art. 19) and WCPFC (art. 30).
[335] SPRFMO.
[336] WCPFC.
[337] Australia, European Union.
[338] Australia, European Union, Mozambique, New Zealand, Norway, United States.

fisheries management organizations;[339] invitations to non-members to observe meetings;[340] cooperation with non-members on catch documentation schemes and illegal, unreported and unregulated fishing;[340] capacity-building;[341] and dialogue with non-members to encourage participation and cooperation with measures.[342] ICCAT reported on the positive effects of its measures on participation in meetings. Some organizations and arrangements have established funds to assist developing States, including by facilitating their participation in meetings.[343] Other funds, including the WCPFC Special Requirements Fund and the Assistance Fund under Part VII of the Agreement, are also commonly used to support the participation of a second delegate from some small island developing States.

319. In 2015, ICCAT adopted resolution 15-13 on criteria for allocation of fishing possibilities, which, among other things, took into account the interests of some developing coastal States. Conservation and management measures enacted by WCPFC require the Commission to ensure that any such measure does not result in transferring, directly or indirectly, a disproportionate burden of conservation action on to small island developing States and its participating territories. In that regard, WCPFC pointed to the need to precisely define and objectively measure those concepts and potential impacts.

320. On the basis of the foregoing, it appears that many respondents continue to place high value on the participation of developing States in regional fisheries management organizations and arrangements. Several States and organizations and arrangements reported progress on a range of mechanisms established to facilitate such participation. In particular, funds established to support the participation of developing States in meetings or processes of such organizations and arrangements (see also para. 314) and broader measures aimed at enhancing the capacity of developing States to participate meaningfully in the development of conservation and management measures, as well as in their effective implementation, are important steps in the implementation of the relevant recommendations of the Review Conference. The information provided did not address measures to facilitate access to fisheries for straddling fish stocks and highly migratory fish stocks, other than facilitating participation in organizations and arrangements. FAO has, however, observed an increased share of developing States in overall fishery trade.[344]

Strengthening capacity-building mechanisms and programmes

321. Part VII of the Agreement requires States parties to recognize the special requirements of developing States, cooperate with developing States and provide special assistance in the implementation of the Agreement. In 2006 and 2010, the Review Conference recommended that States should contribute to the Assistance Fund under Part VII of the Agreement and other mechanisms to assist developing States in the implementation of the Agreement. It also recommended that coherence in the provision of such assistance should be promoted and that the compilation of

[339] GFCM, NEAFC.
[340] CCAMLR.
[341] CCSBT.
[342] CCAMLR.
[343] GFCM, IATTC, ICCAT, SEAFO, SPRFMO, WCPFC, WECAFC. CCSBT established a fund but subsequently discontinued it because it was not required.
[344] FAO, *The State of World Fisheries and Aquaculture: Opportunities and Challenges* (Rome, 2014).

available sources of funding for developing States should be kept available and up to date.

322. Several States reported on measures taken to strengthen and promote coherence in capacity-building measures at the global and regional levels.[345] The compilation of sources of available assistance for developing States and the needs of developing States for capacity-building and assistance in the conservation and management of straddling fish stocks and highly migratory fish stocks mentioned above (see para. 303) could also serve as a tool for promoting coherence in capacity-building.

323. The Assistance Fund under Part VII of the Agreement, administered jointly by the Division for Ocean Affairs and the Law of the Sea and FAO, plays an important role in facilitating the participation in and effective implementation of the Agreement by developing States. Since its establishment in 2004, the Fund has disbursed more than $1.49 million.[346] In recent years, however, the balance has frequently been low, also reflecting the substantial usage rate. In 2014, the Fund was depleted and no applications for assistance could be considered until a further contribution was received from Norway in March 2015, following appeals by the Division. The Division and FAO continue to publicize the Fund through their websites and by drawing attention to it, directly with States, at intergovernmental meetings and through the Regional Fishery Body Secretariats Network.

324. Concerns regarding the depletion of the Fund in 2014 were expressed by some States, accompanied by calls for future contributions.[347] ICCAT and WECAFC reported on how the Fund was promoted among their members, including on the ICCAT website. WECAFC, however, noted that very few members had used the resources, also because the Fund was depleted.

325. A number of States reported on efforts to strengthen existing capacity-building programmes.[348] The European Union reported on its support for capacity-building mechanisms in regional fisheries management organizations and arrangements, such as the CCAMLR General Science Capacity Special Fund, research programmes and scientific work, and on specific grants to support GFCM.

326. The importance of good coordination among assistance and cooperation programmes was highlighted.[349] One suggestion to achieve such coordination was to have a steering committee elected from among key stakeholders with a view to establishing a clear way forward.[350] There are already examples of coordination in capacity-building, such as GFCM, which liaised with other organizations to avoid duplications and promote synergies.[351]

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[345] Canada, European Union, Japan, New Zealand, Norway, Qatar, United States.

[346] As at 31 December 2014 (see financial report available from www.un.org/depts/los/convention_agreements/fishstocktrustfund/financial_reports.htm). Contributions have been received from Australia, Canada, Iceland, Lebanon, New Zealand, Norway and the United States.

[347] E.g., United States.

[348] European Union, Japan, New Zealand, Norway.

[349] Japan.

[350] Qatar.

[351] GFCM.

327. Several regional fisheries management organizations and arrangements and PICES referred to capacity-building mechanisms and programmes under their purview as examples of strengthened capacity-building.[352]

328. On the basis of the foregoing, it appears that important measures have been put into place to strengthen capacity-building mechanisms and programmes at the global, regional and bilateral levels. However, the current level of funding for several capacity-building initiatives, in particular the Assistance Fund under Part VII of the Agreement, remains insufficient and irregular, thereby hampering their ability to fulfil their purposes. Over the years, the Fund has proved to be of significant value to the promotion of the objectives of the Agreement. The need for sustained voluntary contributions to the Fund to maintain its availability and effectiveness in the light of its substantial usage therefore remains critical. Lastly, on the basis of the information provided, it was not possible to assess the overall extent or impact of the assistance provided, or the level of coordination among capacity-building programmes or initiatives.

Avoiding adverse impacts on, and ensuring access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers, in addition to indigenous peoples in developing States

329. In 2010, the Review Conference recommended observing the need to avoid adverse impacts on the aforementioned vulnerable groups when establishing conservation and management measures, and also ensuring that they had access to fisheries. The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication, adopted in 2014, provide guidance with regard to small-scale fisheries in support of the overall principles and provisions of the Convention and the Code of Conduct for Responsible Fisheries.

330. Several States and regional fisheries management organizations and arrangements reported on measures taken to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers, in addition to indigenous peoples in developing States. The involvement of small-scale and artisanal fishers and women fishworkers was considered extremely important to achieving sustainable fisheries. It was noted that coastal fishing contributed to Pacific economies, lifestyles and food security, including for local and indigenous fishers, and that the interaction between industrial and local fishers should be actively considered by fisheries managers.[353]

331. Australia reported on foreign aid programmes to support community-based fisheries management. It also reported on a memorandum of understanding signed with Indonesia regarding the operations of Indonesian traditional fishers in areas of the Australian exclusive fishing zone and continental shelf in 1974, under which the Governments designated an area within Australian waters in the Timor Sea in which Indonesian traditional fishers, using traditional fishing methods only, were permitted to operate. Canada indicated that it had taken measures to strengthen independent fisheries owner-operators.

332. Bilateral agreements between the European Union and other coastal States contain provisions to avoid any interference between the activity of the Union's

[352] CCAMLR, ICCAT, OSPESCA, WCPFC.
[353] New Zealand.

long-distance fleet and that of local small-scale and artisanal fishing communities. The Union also supported small-scale fishers, including by providing material or training, and funded initiatives focused on small-scale fisheries to secure food and revenue for the most vulnerable populations.

333. New Zealand reported that it provided support to improve coastal fisheries governance in developing Pacific island States, bilaterally and through the secretariat of the Pacific Community. It also reported that it integrated gender requirements into fisheries support where appropriate. For example, it encouraged protection for women working on fishing vessels and in processing factories as part of investment policy frameworks in Pacific countries. Japan encouraged South-East Asian countries to establish conservation and management measures that did not undermine the development of subsistence, small-scale and artisanal fishers and women fishworkers, as well as indigenous peoples.

334. Norway indicated that impacts on, and access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers, as well as indigenous people in developing States, could be covered in management plans developed through the EAF-Nansen project. It noted, however, that access to resources depended on the policies and legal framework in the States in question. It also highlighted its long-standing support for the International Collective in Support of Fishworkers, a non-governmental organization focused on strengthening small-scale fishworkers' conditions, including gender aspects.

335. In the Philippines, subsistence fishers are guaranteed access to highly migratory fish stocks and straddling fish stocks because they are not required by law to obtain a licence. In Mozambique, fisheries regulations reserve exclusive fishing zones within three nautical miles of the coast for small-scale fishers. The country's small-scale fisheries development projects are integrated to consider all social aspects, including gender, education, health, the value chain and transport networks within fishing communities. The country is also implementing a participatory management system in which community-based organizations are represented in local fisheries management organizations, so as to promote access to fisheries resources and involvement in management and to control fishing activities. Most FFA members make use of commercial exclusion zones around the islands to support subsistence and sport fishing.

336. Some regional fisheries management organizations and arrangements also reported on measures in respect of subsistence, small-scale and artisanal fishers and fishworkers. The need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and fishworkers, in addition to indigenous peoples in developing States parties, was reflected in the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean and WCPFC measures.[354] ICCAT measures take into account subsistence, small-scale and artisanal fishers in specific fisheries. OSPESCA noted that support for small-scale fisheries was one of the most relevant objectives of its cooperation projects.

337. GFCM said that it actively promoted sustainable small-scale fisheries, including through the organization of a regional symposium in 2013 and a regional conference on building a future for sustainable small-scale fisheries in the

[354] See, for example, its measure on the conservation and management of sea turtles.

Mediterranean and the Black Sea in 2016.[355] FFA members noted the importance of keeping stocks high to avoid disproportionate impacts on artisanal catch rates where targeting overlapped with industrial fleets. Under ICCAT resolution 15-13 on criteria for allocation of fishing possibilities, consideration is to be given to the interests of artisanal, subsistence and small-scale coastal fishers and the needs of coastal fishing communities dependent mainly on fishing for the stocks managed by ICCAT.

338. NEAFC reported that the issue of how its contracting parties allocated their fishing opportunities nationally remained outside its mandate.

339. On the basis of the foregoing, it appears that limited progress has been made in relation to avoiding adverse impacts on, and ensuring access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers, in addition to indigenous peoples in developing States. Although some States and regional fisheries management organizations and arrangements reported on efforts to take that requirement into account in the development of programmes and measures, and in the context of broader policy initiatives, no activities focused primarily on such issues were reported. The adoption of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication in 2014 remains a significant development, but the impact of the Guidelines will depend on the level of their implementation.

Mainstreaming of capacity-building efforts with other international development strategies

340. In 2010, the Review Conference urged the mainstreaming of efforts to assist developing States, in the context of the Agreement, with other relevant international development strategies.

341. Several States reported on efforts to mainstream capacity-building efforts in fisheries with other international development strategies. In that context, reference was made to important sustainable development instruments adopted since 2010 that included commitments on sustainable fisheries, including “The future we want”, the Samoa Pathway and the 2030 Agenda for Sustainable Development.[356]

342. Several States provided information on how the issue of fisheries was mainstreamed into national development strategies.[357] In Mozambique, a project-based planning and budgeting process allows the mainstreaming of issues throughout approved projects.

343. Some regional fisheries management organizations and arrangements provided information on their work to integrate capacity-building into broader efforts[358] through, for example, cooperation with other entities such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora[359] and work with regional support agencies.[360]

[355] See www.fao.org/gfcm/meetings/ssfconference2016/en/.
[356] Australia, Canada.
[357] Australia, European Union, Japan, New Zealand, Norway, Qatar.
[358] ICCAT, OSPESCA, WCPFC.
[359] ICCAT.
[360] WCPFC.

344. On the basis of the foregoing, it appears that there has been some progress in the mainstreaming of capacity-building measures for fisheries with other international development strategies, primarily at the global level through such instruments as the 2030 Agenda for Sustainable Development, "The future we want" and the Samoa Pathway. Some, more limited, progress was also reported at the regional and national levels.

2. Conclusions

345. The effectiveness of the Agreement depends on broad participation in, and effective implementation of, the Agreement, together with participation in the work of regional fisheries management organizations and arrangements that implement its provisions. Assistance to, and cooperation with, developing States are necessary to promote their adherence to the Agreement and to facilitate their effective implementation of its provisions.[361] The implementation of the recommendations of the Review Conference relating to developing States and non-parties is therefore vital to the success of the Agreement.

346. The General Assembly has repeatedly called upon States that have not done so, in order to achieve the goal of universal participation, to become parties to the Agreement.[362] Substantial additional efforts by States, regional fisheries management organizations and arrangements and other stakeholders are needed to achieve that goal. As suggested by some respondents, there may be benefits in providing targeted information, training and technical assistance on the Agreement, as well as broader capacity-building efforts, in that regard. It may also be important to continue an active dialogue with non-party States regarding the issues that deter them from participating in the Agreement.

347. A lack of capacity, especially in developing States, continues to be a challenge to participation in and implementation of the Agreement. In "The future we want", States recognized the importance of building the capacity of developing countries to be able to benefit from the conservation and sustainable use of the oceans and seas and their resources. The overall scope and level of assistance provided to developing States should be sufficient to promote the effective implementation of all aspects of the Agreement, consistent with Part VII of the Agreement. It is important to explore all possible vehicles for increasing assistance to developing States, including the promotion of South-South cooperation and public-private partnerships.

348. Measures should be taken to ensure that the needs of developing States for assistance and cooperation in the effective implementation of the Agreement continue to be communicated and assessed regularly. It is also important that capacity-building measures be tailored to meet those needs and be able to be regularly reassessed in the light of evolving needs and priorities.

349. Efforts to facilitate the participation of developing States in regional fisheries management organizations and arrangements should be accompanied by measures to

[361] The General Assembly has called upon States to promote, through continuing dialogue and the assistance and cooperation provided in accordance with articles 24 to 26 of the Agreement, further ratifications of or accessions to the Agreement by seeking to address, among other things, the issue of lack of capacity and resources that might stand in the way of developing States becoming parties.

[362] Resolution 70/235, para. 4.

promote their participation in, and access to, high seas fisheries, where appropriate. The General Assembly has urged States parties to the Agreement to take into account the special requirements of developing States, as highlighted in the Samoa Pathway, in giving effect to the duty to cooperate in the establishment of conservation and management measures for straddling fish stocks and highly migratory fish stocks, including the need to ensure, where appropriate, in accordance with the Agreement, that such measures do not transfer a disproportionate burden of conservation action on to developing States, and noted, in that regard, ongoing efforts to better develop a common understanding of the concept.[363]

350. In the light of the importance of the Assistance Fund under Part VII of the Agreement to participation in, and effective implementation of, the Agreement, States parties may wish to explore ways to ensure sustained voluntary contributions to the Fund, including from donors other than States. Additional measures should also be taken to ensure a coherent and coordinated approach to capacity-building where possible. In this context, the Secretariat could be requested by the General Assembly to update the compilation of available sources of funding for developing States.

351. The mainstreaming of the interests of subsistence, small-scale and artisanal fishers and women fishworkers, in addition to indigenous peoples in developing States, in the development and implementation of fisheries management processes and conservation and management measures remains an area of insufficient implementation of the recommendations of the Review Conference. Accordingly, greater emphasis could be placed on accelerating the adoption of relevant measures.

352. Lastly, it is important to ensure that, where fisheries capacity-building has been mainstreamed into international development strategies, such as the 2030 Agenda for Sustainable Development, "The future we want" and the Samoa Pathway, appropriate steps are taken to ensure that the implementation of, and follow-up on, such strategies continue to place sufficient emphasis on the achievement of commitments made in relation to sustainable fisheries.

IV. General conclusions

353. Some 20 years after its opening for signature, the Agreement continues to be one of the most important legally binding multilateral instruments for the conservation and management of fish stocks since the adoption of the Convention in 1982. It also provides important protection for the ecosystems in which these fish stocks live. Over the past 10 years, the implementation of the Agreement by States and regional fisheries management organizations and arrangements has steadily progressed, including as a result of the recommendations made by the Review Conference in 2006 and 2010. In addition, many of the provisions of the Agreement, in addition to the recommendations adopted by the Review Conference, are reflected in General Assembly resolutions on sustainable fisheries.

354. States and regional fisheries management organizations and arrangements have, in the past six years, continued to take action to implement the recommendations of the Review Conference. While the limited responses from

[363] Resolution 70/75, para. 39.

States to the questionnaire do not enable a complete analysis of progress achieved, it appears from the responses received that the overall level of implementation has improved, albeit unevenly. The implementation of some recommendations has progressed more swiftly than others, and some States and regional fisheries management organizations and arrangements have proceeded more expeditiously than others.

355. The progress reported in certain fisheries notwithstanding, the current level of implementation of the Agreement and the recommendations from the Review Conference does not appear to have contributed significantly to an improvement in the overall status of straddling fish stocks and highly migratory fish stocks, which has witnessed a decline. While the effects of some actions may become evident only over time, the implementation of the recommendations needs to be results oriented and effective.

356. In terms of specific outcomes, the recommendations of the Review Conference relating to conservation and management have contributed to the improved incorporation of precautionary and ecosystems approaches into national and regional policies. Increased attention is also being paid to environmental factors such as the impacts of climate change and ocean acidification, and improved by-catch management.

357. The strengthening of the mandates, measures, decision-making rules and procedures of regional fisheries management organizations and arrangements, including through the introduction of performance review processes and increased cooperation among the organizations and arrangements, has been particularly emphasized. It is now important to build on those achievements through regular performance reviews and the effective implementation of the recommendations emanating therefrom. It is encouraging to note that many lessons learned through the performance review processes appear to have been taken into consideration in the establishment of new organizations and arrangements.

358. Enhancing flag State control continues to be of utmost importance, not only for the achievement of the objectives of the Agreement, and for addressing illegal, unreported and unregulated fishing, but also for ensuring compliance with the duties of the flag State under the Convention. Notable progress has been made in terms of the development of the Voluntary Guidelines for Flag State Performance, the participation of States in the Agreement on Port State Measures, the development of measures and procedures to strengthen compliance in regional fisheries management organizations and arrangements, and work on market-related measures and the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels. The Agreement on Port State Measures has the potential to be another effective tool in the achievement of the obligations of the Agreement and the recommendations of the Review Conference and it is hoped that it will continue to gain support and enter into force as soon as possible. However, all those measures can be truly effective only if complemented by the elimination of subsidies that contribute to overfishing and overcapacity and to illegal, unreported and unregulated fishing — an important contributor to overfishing.

359. Universal participation in, and effective implementation of, the Agreement, as called for by the General Assembly, are crucial to achieving its objectives and central to realizing the commitments made by States in “The future we want” and the 2030 Agenda for Sustainable Development. Additional efforts will be needed to

promote participation, including through the dissemination of information, and to improve capacity-building efforts, in particular in relation to the development of fisheries in developing States, as well as access by those States to high seas fisheries. Enhanced and consistent support is also required for the Assistance Fund under Part VII of the Agreement, to ensure its continued effectiveness. More attention needs to be focused on the implementation of the recommendations relating to subsistence, small-scale and artisanal fishers and women fishworkers, in addition to indigenous peoples in developing States. In the implementation of measures, attention would need to be paid to social aspects, such as the welfare of fishers and fishworkers.

360. Twenty years after the adoption of the Agreement, its provisions continue to provide a modern and adequate legal framework for the conservation and management of straddling fish stocks and highly migratory fish stocks, when fully integrated into national, regional and global measures for their implementation. The recommendations of the Review Conference should continue to aim to strengthen the implementation of those provisions and measures.

361. The recommendations of the Review Conference in 2006 and 2010 represent a significant step in improving the overall conservation and management of straddling fish stocks and highly migratory fish stocks, including by progressing reform efforts within regional fisheries management organizations and arrangements and the implementation of the Agreement at all levels. The resumption of the Review Conference provides a further opportunity for States and other stakeholders to guide and improve the implementation of the Agreement and to evaluate the need to refine and expand on the current recommendations. Continuous and dedicated efforts by all States over the long term are needed if the Agreement is to fulfil its purposes.

Annex I

Status of highly migratory fish stocks reported in the 2006, 2010 and 2016 reports of the Secretary-General

Species		*Geographical area*	*2006 report*	*2010 report*	*2016 report*
Tuna and tuna-like species	Bluefin tuna	East Atlantic Ocean	Overexploited		Probably overexploited
		West Atlantic Ocean	Overexploited		Fully or overexploited
		Southern hemisphere		Overexploited	
		Pacific Ocean	Fully exploited		Overexploited
	Albacore	South Atlantic Ocean	Fully exploited	Overexploited	Possibly overexploited
		North Atlantic Ocean	Overexploited		
		South Pacific Ocean	Fully exploited		
		North Pacific Ocean	Fully exploited		
		Indian Ocean	Probably non-fully exploited	Probably fully exploited	
		Mediterranean Sea	Not known		
	Bigeye tuna	East Pacific Ocean	Overexploited		Fully exploited
		West Pacific Ocean	Probably fully exploited		Overexploited
		Indian Ocean	Probably fully exploited		
		Atlantic Ocean	Probably fully exploited		

Species		*Geographical area*	*2006 report*	*2010 report*	*2016 report*
	Yellowfin tuna	Indian Ocean	Close to or being fully exploited	Probably fully exploited	Overexploited
		Atlantic Ocean		Fully exploited	Overexploited
		Pacific Ocean		Fully exploited	
		Other oceans		Fully exploited	
	Skipjack tuna	Pacific Ocean	Non-fully exploited	Moderately exploited	Non-fully exploited
		Indian Ocean	Probably non-fully exploited		
		Atlantic Ocean	Uncertain	Close to fully exploited	
Tuna and tuna-like species	Blue marlin	Atlantic Ocean	Likely to be overexploited		
		East Pacific Ocean	Fully exploited		
	White marlin	Atlantic Ocean	Likely to be overexploited		
	Striped marlin	North Pacific Ocean		Fully exploited	Overexploited
		South-western Pacific Ocean		Likely to be overexploited	Likely overexploited
		East Pacific Ocean	Non-fully exploited		Likely fully exploited
	Sailfish	Atlantic Ocean			Overexploited
	Billfish	Indian Ocean	Not known		
	Swordfish	Atlantic Ocean	Fully exploited		
		South-east Pacific Ocean	Fully exploited		
		Western and central north Pacific Ocean			Probably non-fully exploited

Species			*Geographical area*	*2006 report*	*2010 report*	*2016 report*
			North-east Pacific Ocean	Non-fully exploited	Probably non-fully exploited	
			Mediterranean Sea		Overexploited	
			Indian Ocean	Intensification of fisheries targeting swordfish	Fully exploited	
Oceanic sharks	Bluntnose sixgill sharks	*Hexanchus griseus*		No assessments	No assessments but prudently considered fully exploited or overexploited globally	No assessments, considered fully exploited or overexploited globally
Oceanic sharks	Basking sharks[a,b]	*Cetorhinus maximus*		Probably overexploited globally	Overexploited globally	
	Thresher sharks (family *Alopiidae*)[c]	*Alopias pelagicus*[c]	North-west Indian Ocean, central Pacific Ocean	Prudent to be considered being fully exploited or overexploited globally	Considered fully exploited or overexploited globally	Fully exploited or overexploited globally
		Alopias superciliosus[c]	North-west Indian Ocean, west and central Pacific Ocean, north-east Pacific Ocean and north Atlantic Ocean			
		Alopias vulpinus[c]	Off the west coast of the United States			
	Whale shark[a,c]	*Rhincodon typus*	Indian Ocean, west Pacific Ocean	Prudent to be considered being fully exploited globally	Continues to be uncertain, but considered fully exploited globally	Remains uncertain in most areas and is considered fully exploited globally

Species			*Geographical area*	*2006 report*	*2010 report*	*2016 report*
Oceanic sharks		Silky shark (*Carcharhinus falciformis*)[c]	Oceanic and coastal, circumtropical distribution and is most common offshore	Not known	Not known, but probably fully exploited globally	Overexploited in the western central Pacific Ocean and probably fully exploited in other regions
	Requiem sharks (family *Carcharhinidae*)	Night shark (*Carcharhinus signatus*)	Western Atlantic Ocean from the United States of America to Argentina and in the eastern Atlantic Ocean from Senegal to northern Namibia	Not known	Considered at least fully exploited in the north-eastern Atlantic Ocean, not known in other parts of its range	
Oceanic sharks		Whitetip shark (*Carcharhinus longimanus*)[a]	In tropical and warm-temperate waters of the Atlantic Ocean, possibly in the Mediterranean Sea, the west Indian Ocean and the Pacific Ocean	Not known		Overexploited in the western central Pacific Ocean, not known in other areas
		Blue shark (*Prionace glauca*)	Worldwide in temperate and tropical oceanic waters	In 2003, more than 30,000 tons were recorded	Prudent to consider fully exploited in the Atlantic and eastern Pacific oceans, but not known in other parts of its range	Considered non-fully exploited in the Atlantic and western Pacific oceans, and other parts of its ranges remains unknown
		Winghead (*Eusphyra blochii*)	A global distribution mostly in warm waters	Not known		

Species			*Geographical area*	*2006 report*	*2010 report*	*2016 report*
	Hammerhead, bonnethead or scoophead sharks (family *Sphyrnidae*)	Scalloped bonnethead (*Sphyrna corona*)	A global distribution mostly in warm waters	Not known		
		Whitefin hammerhead (*Sphyrna couardi*)	A global distribution mostly in warm waters	Not known		
		Scalloped hammerhead (*Sphyrna lewini*)[a]	A circumglobal distribution in coastal and semi-oceanic warm temperate and tropical seas	Local depletion remains a serious concern	Not known	Not known, but likely fully or overexploited
		Scoophead (*Sphyrna media*)	A global distribution mostly in warm waters	Not known		
Oceanic sharks		Great hammerhead (*Sphyrna mokarran*)[a]	A global distribution mostly in warm waters	Not known		
		Bonnethead (*Sphyrna tiburo*)	A global distribution mostly in warm waters	Not known		
		Smalleye hammerhead (*Sphyrna tudes*)	A global distribution mostly in warm waters	Not known		
		Smooth hammerhead (*Sphyrna zygaena*)[a]	In temperate waters in the northern and southern hemispheres and in the tropics	Not known		

Species			*Geographical area*	*2006 report*	*2010 report*	*2016 report*
	Mackerel sharks	Great white shark (*Carcharodon carcharias*)[a,b,c]	Amphitemperate and found in coastal and offshore areas of continental and insular shelves	Not known		
		Shortfin mako (*Isurus oxyrinchus*)[c]	Coastal and oceanic circumglobal species found in temperate and tropical waters	Overexploited in the north Atlantic Ocean, not known in other regions	Probably overexploited in the northern Atlantic Ocean and fully exploited in the eastern Pacific Ocean, not known in other areas	Probably fully exploited in the north and south Atlantic and in the eastern Pacific oceans, not known in other areas
		Longfin mako (*Isurus paucus*)[c]	Common in the west Atlantic Ocean and possibly in the central Pacific Ocean	Not known		
		Salmon shark (*Lamna ditropis*)	In cool waters of the north Pacific Ocean	Considered heavily fished even though most of the catch is discarded by-catch		
Oceanic sharks		Porbeagle (*Lamna nasus*)[a,c]	North Atlantic Ocean and in a circumglobal band of temperate water of the south Atlantic, south Indian, south Pacific and Southern oceans	Overexploited in the north and west Atlantic Ocean	Overexploited in the western and the north-east Atlantic Ocean, not known in the Southern Ocean	
Other highly migratory species	Pomfrets	Include 8 genera and 21 species	In temperate and tropical waters of the Atlantic, Indian and Pacific oceans	Fully exploited in the east Indian Ocean and non-fully exploited in the south-west Pacific Ocean	Non-fully exploited to fully exploited	Unlikely to be overexploited

Species			*Geographical area*	*2006 report*	*2010 report*	*2016 report*
	Sauries	Atlantic saury (*Scomberesox saurus*)	Near the surface in the north Atlantic Ocean, in the Baltic Sea and throughout the Mediterranean Sea	Not known, but unlikely to be overexploited		
		Pacific saury (*Cololabis saira*)	North Pacific Ocean	Not known, but unlikely to be overexploited		
		Saury (*Cololabis adocetus*)	East Pacific Ocean	Not known, but unlikely to be overexploited		
		King gar (*Scomberesox saurus scombroides*)	Atlantic, Indian and Pacific oceans	Not known, but unlikely to be overexploited		
	Dolphinfish	Common dolphinfish (*Coryphaena hippurus*)	In most warm and temperate seas (20˚C to 30˚C) in the Atlantic Ocean, including the Mediterranean Sea, the west and east Indian Ocean and in the west central Pacific Ocean	Not known, but unlikely to be overexploited		
		Pompano dolphinfish (*Coryphaena equiselis*)	Worldwide distribution in tropical and subtropical seas	Not known, but unlikely to be overexploited		

[a] Species of shark listed in Appendix II to the Convention on International Trade in Endangered Species of Wild Fauna and Flora.
[b] Species of shark listed in Annex II to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean to the Barcelona Convention.
[c] Species of shark listed in Appendix II to the Convention on the Conservation of Migratory Species of Wild Animals.

Annex II

Status of the selected straddling fish stocks reported in the 2006, 2010 and 2016 reports of the Secretary-General

Geographic areas		*Species*	*2006 report*	*2010 report*	*2016 report*
Pacific	North-west Pacific	Alaska (walleye) pollock (*Theragra chalcogramma*)	Fully exploited	Overexploited	
		Flying squid (*Ommastrephes bartrami*)	Non-fully to fully exploited and in some cases recovering	Non-fully to fully exploited	
		Boreal clubhook squid (*Onychoteuthis borealijaponica*)	Non-fully to fully exploited and in some cases recovering		
		Boreopacific armhook squid (*Gonatopsis borealis*)	Non-fully to fully exploited and in some cases recovering		
		Pacific Ocean perch (*Sebastes alutus*)	Overexploited		
		Pelagic armourhead (*Pseudopentaceros rishardsoni*)	Not known		
		Alfonsino (*Beryx splendens*)	Not known		
	North-east Pacific	Jack mackerel (*Trachurus picturatus symmetricus*)	Non-fully exploited		
		Alaska (walleye) pollock (*Theragra chalcogramma*)	Fully exploited		
	Western central Pacific		No information on straddling stocks		
	Eastern central Pacific	Giant squid (*Dosidicus gigas*)	Non-fully to fully exploited		Not overexploited
		Horse mackerel (*Trachurus spp.*)	Non-fully to fully exploited	Non-fully exploited	

Geographic areas		*Species*	*2006 report*	*2010 report*	*2016 report*
		Spanish mackerel (*Scomber japonicus*)	Non-fully to fully exploited		Not overexploited
	South-west Pacific	Orange roughy (*Hoplostethus atlanticus*)	Fully exploited to overexploited		Overexploited
		Oreo dories (*Allocyttus verrucosus*, *Allocyttus niger*, *Neocyttus rhomboidalis*, *Pseudocyttus maculatus*)	Fully exploited to overexploited		
		Hoki (*Macruronus novaezelandiae*)	Fully exploited to overexploited		Fully exploited
		Narrow-barred Spanish mackerel (*Scomberomorus commerson*)	Non-fully exploited	Likely to be non-fully exploited	Non-fully exploited
		Flying squids	Non-fully exploited		
		Flying fish	Non-fully exploited	Likely to be non-fully exploited	Non-fully exploited
	South-east Pacific	Jumbo squid (*Dosidicus gigas*)	Non-fully exploited		Fully exploited
		Chilean jack mackerel (*Trachurus picturatus murphyi*)	Fully or overexploited	Fully exploited to overexploited	Overexploited
		Spanish mackerel (*Scomber japonicus*)	Catches are small	Non-fully exploited to fully exploited	Fully exploited
Atlantic	North-west Atlantic	Cod (*Gadus morhua*)	Overexploited		Fully exploited to overexploited
		American plaice (*Hippoglossoides platessoides*)	Overexploited		Fully exploited to overexploited
		Redfish (*Sebastes marinus*)	Overexploited		Fully exploited

Geographic areas	*Species*	*2006 report*	*2010 report*	*2016 report*
	Witch flounder (*Glyptocephalus cynoglossus*)	Overexploited		Fully exploited or overexploited
	Atlantic halibut (*Hippoglossus hippoglossus*)	Overexploited		
	Black halibut (*Reinhardtius hippoglossoides*)	Overexploited		
	Yellowtail flounder (*Pleuronectes ferrugineus*)	Fully exploited		
	Grenadiers (*Macrouridae*)	Not known	Fully exploited to overexploited	
	Capelin (*Mallotus villosus*)	Non-fully exploited	Overexploited	
	Shrimp (*Pandalus borealis*)	Fully exploited	Fully exploited to overexploited	Overexploited
North-east Atlantic	Blue whiting (*Micromesistius poutassou*)	Overexploited		Fully exploited
	Oceanic redfish (*Sebastes mentella*)	Fully exploited	Overexploited	
	Cod (*Gadus morhua*)	Overexploited	Fully exploited	Fully exploited to overexploited
	Haddock (*Melanogrammus aeglefinus*)	Overexploited	Fully exploited	Fully exploited to overexploited
	Black halibut (*Reinhardtius hippoglossoides*)	Overexploited		Fully exploited
	Atlanto-Scandian (Norwegian spring-spawning) herring (*Clupea harengus*)	Fully exploited		
	Mackerel (*Scomber scombrus*)	Overexploited		Fully exploited

Geographic areas	*Species*	*2006 report*	*2010 report*	*2016 report*
	Horse mackerel (*Trachurus trachurus*)	Uncertain	Not known	Fully exploited
Eastern central Atlantic		No significant fisheries		
West central Atlantic		No significant fisheries		
South-west Atlantic	Shortfin squid (*Illex argentinus*)	Fully exploited		Fully exploited to overexploited
	Common squid (*Loligo spp.*)	Not known		
	A flying squid (*Martialia hyadesi* of the *Ommastrephidae* family)	Not known		
	Hakes (*Merluccius hubbsi* and *Merluccius polylepis*)	Fully exploited to overexploited		
	Southern blue whiting (*Micromesistius australis*)	Fully exploited to overexploited	Overexploited	
	Pink cusk eel (*Genypterus blacodes*)	Non-fully exploited to fully exploited	Fully exploited to overexploited	Overexploited
	Patagonian toothfish (*Dissostichus eleginoides*)	Non-fully exploited to fully exploited	Fully exploited	Fully exploited to overexploited
	Tadpole mora (*Salilota australis*)	Not known		
	Patagonian grenadier (*Macruronus magellanicus*)	Non-fully exploited	Non-fully exploited to fully exploited	Fully exploited
	Grenadier (*Macrourus whitsoni*)	Not known		
	Antarctic cod (*Notothenia rossii*)	Not known		
	Rockcod (*Notothenia spp.*)	Not known		

Geographic areas		*Species*	*2006 report*	*2010 report*	*2016 report*
		Sharks	Not known		
		Rays	Not known		
		Patagonian squids		Fully exploited	
	South-east Atlantic	Alfonsinos (family *Bercycidae*)	Not known		
		Orange roughy	Not known		
		Horse mackerel (*Trachurus spp.*)	Fully exploited	Non-fully exploited to overexploited	Fully exploited to overexploited
		Lanternfish (family *Myctophidae*)	Not known		
		Mackerel (*Scomber spp.*)	Not known		
		Skates (family *Rajidae*)	Not known		
		Sharks (order *Selachimorpha*)	Not known		
		Armourhead (*Pseudopentaceros spp.*)	Not known		
		Cardinal fish (*Epigonus spp.*)	Not known		
		Deep sea red crab (*Chaceon maritae*)	Not known		
		Octopus (family *Octopodidae*)	Not known		
		Squids (family *Loliginidae*)	Not known		
		Wreckfish (*Polyprion americanus*)	Not known		
Indian Ocean		Deep-water snapper	No significant fisheries		

Geographic areas	*Species*	*2006 report*	*2010 report*	*2016 report*
Southern Ocean	Antarctic krill (*Euphausia superba*)	Non-fully exploited in FAO areas 48 and 58	Non-fully exploited	
	Lanternfish (*Electrona carlsbergi*)	Non-fully exploited in FAO area 48	Non-fully exploited	
	Sevenstar flying squid (*Martialia hyadesi*)	Non-fully exploited in FAO area 48	Non-fully exploited	Not known
	Crab (*Paralomis spinosissima* and *P. formosa*)	Non-fully exploited in FAO area 48	Non-fully exploited	Not known
	Patagonian toothfish (*Dissostichus eleginoides*)	Considered overexploited in parts of FAO area 58 and fully exploited in FAO area 48 and other parts of FAO area 58	Fully exploited to overexploited	Fully exploited
	Mackerel icefish (*Champsocephalus gunnari*)	Fully exploited in FAO areas 48 and 58	Overexploited	
	Marbled rockcod (*Notothenia rossii*)	Uncertain		
	Lanternfish (*Myctophidae*)		Non-fully exploited	
	Antarctic rockcod (*Trematomus spp.*)		Overexploited	
	Black icefish (*Chaenocephalus aceratus*)		Overexploited	
	Antarctic toothfish (*D. mawsoni*)		Fully exploited to overexploited	

Geographic areas	*Species*	*2006 report*	*2010 report*	*2016 report*
Mediterranean Sea	Giant red shrimp (*Aristaeomorpha foliacea*)	Not known		Considered overexploited in the western Mediterranean Sea
	Blue and red shrimp (*Aristeus antennatus*)	Not known		Considered overexploited in the western Mediterranean Sea
	Rose shrimp	Fully exploited		Considered overexploited in some zones
	Hake (*Merluccius merluccius*)	Overexploited		Considered overexploited in some zones
	Sardines (*Sardina pilchardus*)	Non-fully exploited to overexploited, depending on the zone	Non-fully exploited to overexploited	Fully exploited to overexploited
	Anchovy (*Engraulis encrasicolus*)	Non-fully exploited to overexploited, depending on the zone	Fully exploited to overexploited, depending on the zone	