

**Seventy-first session**

Item 74 (b) of the provisional agenda*

Oceans and the law of the sea: sustainable fisheries, including through the 1995 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, and related instruments**Letter dated 9 September 2016 from the moderator of the workshop to discuss the implementation of paragraphs 113, 117 and 119 to 124 of resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of resolution 66/68 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks addressed to the President of the General Assembly**

In my capacity as moderator of the workshop to discuss the implementation of paragraphs 113, 117 and 119 to 124 of resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of resolution 66/68 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, I have the honour to transmit a summary of the discussions held thereat (see annex).

In its resolution 69/109, the General Assembly recognized the value of preceding its further review of the actions taken by States and regional fisheries management organizations and arrangements in response to paragraphs 113, 117 and 119 to 124 of resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of resolution 66/68 with a two-day workshop. The workshop was held at Headquarters in New York on 1 and 2 August 2016, pursuant to paragraphs 162 and 163 of resolution 69/109 and paragraph 170 of resolution 70/75.

I kindly request that the present letter and the summary transmitted herewith be circulated as a document of the General Assembly under item 74 (b) of the provisional agenda.

(Signed) Osvaldo **Urrutia**
Moderator

* A/71/150.



Annex to the letter dated 9 September 2016 from the moderator of the workshop to discuss the implementation of paragraphs 113, 117 and 119 to 124 of resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of resolution 66/68 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks addressed to the President of the General Assembly

Summary of the discussions held at the workshop*

1. Pursuant to paragraphs 162 and 163 of General Assembly resolution 69/109 and paragraph 170 of resolution 70/75, the workshop to discuss the implementation of paragraphs 113, 117 and 119 to 124 of resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of resolution 66/68 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, was held at Headquarters in New York on 1 and 2 August 2016.
2. The workshop was attended by representatives of States, intergovernmental organizations, including regional fisheries management organizations and arrangements, and non-governmental organizations. Osvaldo Urrutia (Chile) was appointed moderator of the workshop.
3. In accordance with its agenda and organization of work,^a the workshop consisted of five thematic segments, each of which was introduced by the presentations of relevant experts,^b followed by a general discussion among participants. Summaries of each segment are presented in paragraphs 7 to 49 below.
4. Throughout the proceedings of the workshop, participants reiterated the importance of the work of the General Assembly in addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks. They also noted the important role of States, regional fisheries management organizations and arrangements and the Food and Agriculture Organization of the United Nations (FAO) in that regard.
5. Participants welcomed the workshop as an important forum in which to exchange information and views on the actions that had been taken to implement the resolutions, as well as on areas that required further work.
6. Participants took stock of the considerable progress that had been made at the global, regional and national levels since the adoption of resolution 61/105. However, it was noted that implementation remained uneven and that further efforts to strengthen it were needed.

* The summary is intended for reference purposes only and not as a record of the discussions.

^a Available from www.un.org/depts/los/reference_files/Bottom_Fishing_Workshop_2016.pdf.

^b The presentations of panellists are available from www.un.org/depts/los/reference_files/Bottom_Fishing_Workshop_2016_Presentations.pdf.

Impacts of bottom fisheries on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks (segment 1)

7. In segment 1, presentations were made by Pablo Durán Muñoz (Spanish Institute of Oceanography, Spain), Odd Aksel Bergstad (Institute of Marine Research, Norway), Matthew Gianni (Deep Sea Conservation Coalition) and Alastair Macfarlane (International Coalition of Fisheries Associations).

8. Panellists highlighted the scope of the adverse impacts of bottom fishing on vulnerable marine ecosystems and the sustainability of deep-sea fish stocks, making reference also to the first global integrated marine assessment. The importance of deep-sea ecosystems and biodiversity was emphasized, as was the potential scope for damage to such ecosystems. It was noted that, besides bottom-trawling gear, it was now known that other types of gear could also have an impact on the bottom of the ocean and, therefore, have significant adverse impacts on vulnerable marine ecosystems. However, a panellist noted that a comprehensive evaluation of the scale of impacts on benthic ecosystems was not feasible owing to the relative lack of data. Some panellists also pointed out that the scale of bottom fishing was declining and remained small, compared with other fisheries. It was also noted that the number of flag States involved in bottom fishing was also small.

9. Attention was drawn to efforts being undertaken to enhance scientific knowledge and understanding through research programmes, while noting that further work was required to address remaining knowledge gaps, in particular with regard to conducting stock assessments and research on deep-sea fish stocks and vulnerable marine ecosystems. In that regard, it was also noted that more needed to be known about the status and characteristics of many deep-sea fish stocks. The need for an enhanced science-policy interface, including through the integration of the results of scientific research into management decisions of regional fisheries management organizations and arrangements, and the application of the precautionary approach, where knowledge was incomplete, was also highlighted. It was considered that greater focus should be placed on more research activities.

10. It was noted that, over the past 10 years, there had been significant progress in developing a regulatory framework for bottom-fishing activities on the high seas. Panellists highlighted the steps taken to implement the provisions of General Assembly resolutions and the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, noting the considerable progress made. At the same time, unevenness in implementation and some specific areas where implementation still needed to make progress were underscored, including with regard to the assessments of cumulative impacts, seabed mapping, threshold-level determination, encounter protocols, footprint determination and an understanding of the nature of vulnerable marine ecosystems.

11. It was pointed out that, while there were still gaps in the coverage of regional fisheries management organizations and arrangements for bottom fisheries, bottom fishing was not taking place in most areas lacking those organizations and arrangements competent to regulate such activities. Although the south-west Atlantic was provided as an example of an area where bottom fishing was taking place, notwithstanding a lack of coverage of regional fisheries management organizations and arrangements, some participants considered that the flag States of vessels fishing in the area had been taking the measures necessary to address the

impacts of fishing activities. Other participants noted the lack of effective action by some flag States.

12. It was noted that the putting in place of effective vulnerable marine ecosystem encounter protocols was also dependent on the availability of data. The view was expressed that a small number of encounters had been reported because of the relatively small scale of bottom fisheries. Another panellist expressed the view that the current threshold levels were too high to effectively protect vulnerable marine ecosystems. The need to cautiously evaluate the encounter thresholds and move-on rules of vulnerable marine ecosystems for each region was emphasized. It was further noted that independent scientific observers on board could improve reporting. Furthermore, it was stressed that, regardless of the implementation of the move-on rules, the impacts of bottom fisheries should be assessed.

13. It was noted that, while area-based management tools, including vulnerable marine ecosystem closures, were used in practice, the requirement for impact assessments had only been partially implemented.

14. Some participants stressed the importance of the full implementation of the provisions of existing General Assembly resolutions and international law. In that regard, a panellist expressed the view that the relevant resolutions did not articulate the adequate level of protection for vulnerable marine ecosystems.

15. A participant expressed a preference for annual reporting by regional fisheries management organizations and arrangements, rather than consideration of the issue of bottom fishing by the General Assembly, and others for the Assembly to retain a broader oversight role in that regard.

Progress made by States in addressing the impacts of bottom fisheries on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, in particular through the implementation of the relevant paragraphs of resolutions 64/72 and 66/68 (segment 2)

16. In segment 2, presentations were made by Mindaugas Kisieliauskas (Directorate-General for Maritime Affairs and Fisheries, European Commission); Jae-bong Lee (National Institute of Fisheries Science, Republic of Korea); Aurora Guerrero (Undersecretariat for Fisheries, Chile); and Kerrie Robertson (Australian Government Department of Agriculture and Water Resources).

17. Several States presented their experiences in implementing the relevant provisions of the General Assembly resolutions addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks. In that regard, some participants highlighted the progress made at the national level since 2011 in the development of legislative and regulatory frameworks for bottom fishing, including in response to the provisions of the relevant resolutions. The measures described included requirements for fishing authorizations, capacity freezes, footprint restrictions, depth restrictions, gear restrictions, impact assessments, reporting and move-on rules, area closures, control measures, penalties, data collection, mapping and identification of vulnerable marine ecosystems, observer coverage, harvest control rules and bans on fishing in areas not covered by regional fisheries management organizations and arrangements.

18. Information was also provided on how national legislation for areas within national jurisdiction reflected the provisions of relevant General Assembly resolutions. Examples in that regard included the application of the precautionary and ecosystem approaches, the definition of vulnerable marine ecosystems, the identification and prohibition of fishing on seamounts, the establishment of marine protected areas, observer programmes, gear restrictions, seafloor mapping programmes and the development of an ecological risk assessment framework.

19. The complexity of developing and implementing national legal frameworks was manifested in the various decisions and approaches highlighted by panellists. For example, the policy and scientific bases of restricting bottom fishing activities beginning at a depth of 800 m were debated. Discussions also focused on decisions on the geographical scope of national measures, which could overlap with measures put in place by regional fisheries management organizations and arrangements, thereby creating a potential lack of coherence among those measures.

20. Participants reported on their efforts to implement the measures taken by regional fisheries management organizations and arrangements to address the impacts of bottom fishing.

21. Information was provided on voluntary and interim measures put in place by States until the adoption of measures by new regional fisheries management organizations and arrangements or pending the entry into force of their constitutive instruments. The need for all flag States fishing in areas not regulated by regional fisheries management organizations and arrangements to undertake assessments and implement measures was highlighted. However, it was noted that the establishment of measures by flag States in relation to areas not currently regulated through regional fisheries management organizations and arrangements was a continuing process, to be further refined on the basis of the best scientific information available as the knowledge base was expanded. Hope was expressed that precautionary measures would be put in place soon for the Arctic Ocean.

22. The need for improved implementation by States and for the sharing of information on the measures taken to implement the General Assembly resolutions at the national level was noted. In particular, the need to establish effective threshold levels, scientific observer coverage and enforcement was indicated. The need for additional research on vulnerable marine ecosystems and deep-sea fish stocks, including mapping, was also emphasized.

Focus on the experience and the special requirements of developing States in addressing the impacts of bottom fisheries on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, in particular through the implementation of the relevant paragraphs of resolutions 64/72 and 66/68 (segment 3)

23. In segment 3, presentations were made by Rankiri Pathirannahelage Prabath Krishantha Jayasinghe (National Aquatic Resources Research and Development Agency, Sri Lanka), Merete Tandstad (FAO) and Mario Gilberto Aguilar Sánchez (National Commission for Aquaculture and Fisheries, Mexico).

24. Attention was drawn to not only some of the progress made, but also the challenges faced by developing States in protecting vulnerable marine ecosystems

from the impacts of bottom fishing, including in areas within national jurisdiction. Panellists highlighted the importance of sustainable fisheries for nutrition, food security and sustainable development in developing countries, as well as the steps taken at the national level to develop bottom fisheries while protecting vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks. Measures taken included the imposition of gear restrictions, the establishment of protected areas and ecologically and biologically significant areas, capacity-control measures, data-collection measures, the management of shark fisheries, awareness-raising programmes, the application of the precautionary and ecosystem approaches and monitoring, control and surveillance mechanisms, including logbook reporting.

25. The need to enhance the capacity of developing States, including with regard to stock assessments, scientific and technical knowledge, financial resources, infrastructure and training, was underscored. The view was expressed that further efforts were also needed for the development of integrated management plans and data-sharing at the regional level. The difficulty of building buy-in from fishing communities in developing States was also noted. The challenges associated with maintaining sufficient levels of employment while achieving maximum sustainable yield in fisheries were further underscored.

26. The significant potential value of participation in deep-sea fisheries for developing States was highlighted. In that regard, a panellist highlighted some of the challenges that could arise when developing countries acquired capacity to participate in deep-sea fisheries. It was noted that integrating those new entrants would require changes to existing allocations of fishing opportunities, based on the principle of equity. At the same time, the maintenance of the long-term sustainability of deep-sea fish stocks and the protection of vulnerable deep-sea ecosystems also needed to be considered. Other challenges for developing States in relation to bottom fishing that were identified included the development of joint investigation programmes, the protection of areas important for biological connectivity and ensuring the implementation of regulations.

27. Information was provided on ongoing capacity-building and capacity-development programmes, including the FAO deep-seas fisheries programme, the Global Sustainable Fisheries Management and Biodiversity Conservation in Areas Beyond National Jurisdiction, which was supported by the Global Environment Facility, and the EAF Nansen project. In that context, the challenges faced in various regions and by States with different capacities were noted, as were the opportunities for and potential benefits of cross-regional exchanges and information-sharing.

Progress made by regional fisheries management organizations and arrangements in addressing the impacts of bottom fisheries on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, in particular through the implementation of the relevant paragraphs of resolutions 64/72 and 66/68 (segment 4)

28. In segment 4, presentations were made by Miguel Bernal (General Fisheries Commission for the Mediterranean), Ricardo Federizon (Northwest Atlantic Fisheries Organization), Stefán Ásmundsson (North-East Atlantic Fisheries Commission), Dae Yeon Moon (North Pacific Fisheries Commission), Ben van Zyl (South East

Atlantic Fisheries Organization) and Johanne Fischer (South Pacific Regional Fisheries Management Organization).

29. Panellists described various actions taken at the regional level through regional fisheries management organizations and arrangements to implement the provisions of the General Assembly resolutions aimed at addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks. Those included the establishment of the fishing footprint, exploratory fisheries protocols and impact assessments, the identification and closure of vulnerable marine ecosystems, the development of encounter protocols, fish stock assessments, compulsory observer coverage and the periodic review of adopted measures. The implementation of interim measures and voluntary measures in the context of newly established regional fisheries management organizations and arrangements was also highlighted. The development of a regional strategy for the implementation of the Sustainable Development Goals by one regional fisheries management organization, which included the identification of vulnerable marine ecosystems, was noted. The practice of annual compliance reviews by regional fisheries management organizations and arrangements was also highlighted.

30. The diversity of approaches among regional fisheries management organizations and arrangements was underscored, including in relation to the science-policy interface. It was noted that diverse approaches were also being used by States in one regional fisheries management organization in relation to encounter protocols.

31. Commonalities among the issues faced by regional fisheries management organizations and arrangements in implementing the resolutions identified by participants included the paucity of scientific information, difficulties in the collection and sharing of data and the challenges of ensuring an effective science-policy interface. The development of rules of procedure for the collection of data on catches and vulnerable marine ecosystems by on-board observers were highlighted as ways to address challenges in data collection. It was also noted that undertaking stock assessments could be challenging, given the limited knowledge of deep-sea species, in particular by-catch in mixed fisheries. Some participants underlined the need for collaboration among regional fisheries management organizations and arrangements and between scientists across regions. The ongoing dialogue between scientists and managers, as well as the need to enhance such dialogue, was emphasized.

32. It was noted that more research was needed with regard to the effectiveness of the closure of fisheries in improving ecosystem resilience.

33. The need to use the best scientific information available was stressed. It was pointed out that scientific advice was not always acted upon by regional fisheries management organizations and arrangements. In response to a question on the possible use of objection procedures by States to opt out of conservation and management measures aimed at regulating bottom fishing, a panellist indicated that there had been no objections to measures to protect vulnerable marine ecosystems in the North-East Atlantic Fisheries Commission and that information on the use of the objection procedure in that organization had been made publicly available.

34. The importance of integrating scientific information into management measures so as to prevent significant adverse impacts on vulnerable marine ecosystems was highlighted.

35. Participants commended the good progress made in implementing the relevant General Assembly resolutions at the regional and national levels. A participant noted that the Preparatory Committee established under General Assembly resolution 69/292 on the development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction should be made aware of those achievements. Another participant stressed the need to initiate a discussion on the protection of vulnerable marine ecosystems in the context of the Committee.

36. The importance of sharing information and experiences among various regional fisheries management organizations and arrangements, as well as their member States, was underlined. Existing mechanisms for cooperation and enhancing such cooperation were highlighted, including informal cooperation at the secretariat level through the Regional Fishery Body Secretariats Network and through participation in the Global Sustainable Fisheries Management and Biodiversity Conservation in Areas Beyond National Jurisdiction project, as well as formal bilateral cooperation among regional fisheries management organizations and arrangements or with other bodies through memorandums of understanding. It was pointed out that contracting parties also had a role to play in furthering cooperation. Other means of interaction included bilateral cooperation in stock assessment and capacity-building and the sharing of information through the vulnerable marine ecosystem database of FAO. The role of FAO in coordinating some of those efforts was noted.

37. A number of participants emphasized the need to focus on the implementation of the resolutions by all States and regional fisheries management organizations and arrangements. Some participants expressed the view that the full implementation of the resolutions would be sufficient to protect vulnerable marine ecosystems and the long-term sustainability of fisheries resources.

38. Some participants raised questions as to how the framework for implementing the General Assembly resolutions could be further strengthened in some regional fisheries management organizations and arrangements, including by reviewing threshold levels, applying the precautionary approach and enforcing adopted measures. Challenges in integrating multi-species management were also highlighted. Furthermore, the need for technical assistance and capacity-building, for cases in which the capacities of States participating in a fishery differed, was underscored.

39. A participant said that it was important to encourage action at the global level, but emphasized that circumstances differed between regions. A number of participants considered that technical meetings, such as the workshop, were useful. At the same time, a participant considered the issue to be a technical matter and more appropriate to be reviewed by FAO.

40. It was noted that some bottom fishing occurred outside the established fishing footprint. In that regard, the secretariat of a regional fisheries management

organization indicated that it had been mandated to monitor the movement of fishing vessels to address the matter.

41. It was pointed out that human activities other than fisheries also affected marine ecosystems, and the need for action to address such impacts, in particular by conducting assessments of cumulative impacts, was noted. The importance of cooperation between regional fisheries management organizations and arrangements and regional seas programmes and action plans was underlined. In that regard, activities similar to the ongoing cooperation between the North-East Atlantic Fisheries Commission and the Commission for the Protection of the Marine Environment of the North-East Atlantic were suggested for other regions.

Opportunities for and challenges in further addressing the impacts of bottom fisheries on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks (segment 5)

42. In segment 5, presentations were made by Duncan Currie (Pew Environment Group), Alastair Macfarlane (International Coalition of Fisheries Associations), Ellen Kenchington (Fisheries and Oceans Canada) and Merete Tandstad (FAO).

43. Panellists and other participants highlighted the progress made in the implementation of the relevant resolutions of the General Assembly (see also paras. 10, 17, 18, 24, 29 and 33).

44. Nonetheless, the view was expressed that the implementation of the resolutions could still be significantly improved, in particular in some areas where less progress had been made. The need to strengthen the effectiveness of the measures in place on the basis of the best available scientific information available, improve such information and take a precautionary approach where such information was not available was emphasized. Attention was also drawn to the need to apply an ecosystem approach, conduct assessments of cumulative impacts, undertake multi-species management, which also addressed by-catch, and gain a broader understanding of what constituted a vulnerable marine ecosystem. In addition, specific recommendations for improving implementation were highlighted, including improving assessments, closing vulnerable marine ecosystems to fishing unless environmental impact assessments were performed, performing assessments on slope sediment ecosystems, utilizing the full criteria in the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas to define vulnerable marine ecosystems, allowing vulnerable marine ecosystems to recover, not authorizing fishing activities until measures were put in place and establishing mandates for regional fisheries management organizations and arrangements to protect biodiversity, including in cooperation with regional seas organizations. It was stated that further understanding was needed of the ecological role of vulnerable marine ecosystems and ecosystem services provided by such ecosystems and species, as well as the timeline for the recovery of those ecosystems. It was noted that 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 and the Committee on Fisheries of FAO had also considered the progress made in the implementation of

the General Assembly resolutions relating to bottom fishing and adopted recommendations in this regard.

45. Another view was expressed that the adverse impacts of bottom fishing on vulnerable marine ecosystems were more limited than previously thought and that it would be possible to institute measures to regulate such fishing while maintaining an acceptable level of impact. In that context, it was considered that more technical work was needed to refine the measures currently in place, as scientific understanding improved. In that regard, a view was expressed that the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas could be reviewed to take into account experiences regarding the spatial dimensions of impacts and further refine the concept of significant adverse impacts. Another participant cautioned against reopening the Guidelines. Some participants noted that adverse impacts from bottom fishing might be underreported owing to the lack of scientific understanding of deep-sea ecosystems and species and their interdependences. It was also noted that the recovery time for stocks and ecosystems had to be considered.

46. The difficulties of assessing significant adverse impacts on vulnerable marine ecosystems in the light of the lack of sufficient scientific knowledge of such ecosystems and the species that inhabit them and the need for further research were underscored. It was noted that research, for example, had already helped to understand the valuable role played by sponge fields in fostering biodiversity in benthic habitats. The limitations of predictive analysis and the length of time needed to validate scientific research were highlighted as some of the challenges to be addressed.

47. With regard to strengthening the role of regional fisheries management organizations and arrangements in addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, it was noted that, while regional differences necessitated tailored approaches, various FAO forums and projects provided avenues for the exchange of information and experiences between regional fisheries management organizations and arrangements and other relevant stakeholders. Information was also provided on ongoing initiatives at FAO to further technical work on the implementation of the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas and the General Assembly resolutions, including cooperative initiatives.

48. Many participants drew attention to the important role played by the General Assembly in the progress made to date and expressed the view that there was an ongoing need for the Assembly to review implementation on a regular basis, emphasizing the need for continued and improved reporting in this regard. Other participants expressed the view that further work should be technical in nature and focused on the regional level. According to that view, the Assembly had succeeded in filling the regulatory gap that it had sought to address and could now leave it to other entities to fine-tune the regulatory framework that it had established.

49. Many participants noted the usefulness of the workshop and similar forums for the exchange of views and information among stakeholders. In addition, it was considered useful to have such an exchange with national fisheries managers.

Summary segment

50. During the summary segment, the moderator provided an oral summary of the principal elements of the discussion and indicated that he would prepare the present written summary for circulation as a document of the General Assembly on that basis.

51. Participants expressed their gratitude to the moderator and to the panellists for the high quality of their presentations. Appreciation was also expressed to the Secretariat, in particular to the Division for Ocean Affairs and the Law of the Sea, of the Office of Legal Affairs, for the high standard of secretariat services and assistance provided during the planning and organization of the workshop.
