Annex. Information on activities and developments under the Convention on Biological Diversity related to the effects of climate change on oceans

INTRODUCTION

1. This contribution includes a description of the developments and activities carried out under the Convention on Biological Diversity (CBD) related to the effects of climate change on oceans.

2. ***Executive Summary***

Issues related to climate change and oceans are addressed in various ways under the Convention on Biological Diversity, including under the programmes of work on marine and coastal biodiversity and on climate change and biodiversity. Recent work includes decisions by the Conference of the Parties (COP) and technical reports on issues related to the impacts of ocean acidification on marine and coastal biodiversity, ecosystem-based adaptation (including conservation and management) and climate change mitigation and implications for biodiversity, as well as capacity building activities. The Secretariat also plays an active role in intergovernmental processes related to climate change.

The Secretariat recently published relevant scientific and technical reports, including CBD technical series reports on the impacts of ocean acidification on marine biodiversity, marine spatial planning, integrated coastal management, ecosystem-based approaches to climate change adaptation and disaster risk reduction, ecosystem-based climate change mitigation, geoengineering and ocean fertilization. The Secretariat has also recently produced information documents to inform deliberations under the Convention on issues such as biodiversity and acidification in cold-water areas and on enhancing positive and minimizing negative impacts on biodiversity of climate change adaptation.

The COP, at its thirteenth meeting in 2016, adopted decisions on climate change issues. In decision XIII/4 on biodiversity and climate change, COP emphasized the importance of marine protected areas, coastal resource management and marine spatial planning in building the resilience of marine and coastal ecosystems, and encouraged the use of ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction. In decision XIII/14 on climate-related geoengineering, COP reaffirmed previous decisions on this issue and noted the need for more transdisciplinary research and knowledge-sharing on climate-related geoengineering.

The COP has also recently considered various guidance and workplans relevant to oceans and climate change, including the voluntary specific workplan for biodiversity in cold-water areas within the jurisdictional scope of the Convention (decision XIII/11), priority actions to achieve Aichi Biodiversity Target 10 for coral reefs and closely associated ecosystems (decision XII/23) and guidance for the consideration of biodiversity in environmental impact assessments and strategic environmental assessments annotated specifically for biodiversity in marine and coastal areas (decision XI/18).

The Secretariat, together with various partner organizations, also provides capacity building support to Parties, through the Sustainable Ocean Initiative, to address capacity needs for sustainably managing marine resources and addressing impacts of key pressures, such as climate change.

IMPACTS OF OCEAN ACIDIFICATION ON MARINE AND COASTAL BIODIVERSITY

3. Pursuant to COP decision XI/18, the Secretariat produced CBD Technical Series No. 75: An Updated Synthesis of the Impacts of Ocean Acidification on Marine Biodiversity (available at: https://www.cbd.int/doc/publications/cbd-ts-75-en.pdf). The report was welcomed by the COP at its twelfth meeting in 2014, where it also invited Parties, other Governments, relevant organizations and indigenous and local communities to consider the information contained in the report for their work under relevant processes, including those within the framework of the United Nations Framework Convention on Climate Change.

ECOSYSTEM-BASED ADAPTATION, INCLUDING CONSERVATION AND MANAGEMENT

COP 13 Decision XIII/4 on Biodiversity and Climate Change

4. At its thirteenth meeting in 2016, the COP adopted decision XIII/4 on biodiversity and climate change. In this decision, COP emphasized the importance of marine protected areas, inland waters protected areas, coastal resource management and marine spatial planning in protecting and building the resilience of marine and coastal ecosystems, communities and infrastructure against the impacts of climate change, and encouraged Parties, other Governments and relevant organizations to integrate ecosystem-based approaches to climate change adaptation and mitigation, and disaster risk reduction, into their strategic planning across sectors.

5. In the same decision, COP also encouraged Parties, other Governments and relevant organizations to take a number of actions related to climate change and biodiversity, including: (i) to address the degradation of, loss of, and impacts on biodiversity and, where appropriate, related social, environmental and economic impacts associated with climate change and disasters, considering the costs of inaction, and the value of investing in actions in a timely manner in order to reduce biodiversity loss and other negative impacts; (ii) to take into consideration the status of biodiversity and its vulnerability to current and future climate change impacts when planning and implementing ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction activities, and to minimize and, where possible, avoid activities that may increase the vulnerability and reduce the resilience of biodiversity and ecosystems; (iii) to consider, in the development and implementation of ecosystem-based approaches to climate change adaptation and mitigation, and disaster risk reduction, potential multiple benefits and trade-offs; (iv) to recognize the role of protected areas and other effective area-based conservation measures as cost-effective instruments for climate change adaptation and mitigation as well as disaster risk reduction, and that increased investment for management and conservation will have positive economic, social and environmental effects; and (v) to develop and implement ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction that are based on available science and take into account the traditional knowledge and practices of indigenous peoples and local communities.

Relevant Guidance and Workplans on Conservation and Management Measures

6. At its thirteenth meeting 2016, the COP adopted, through decision XIII/11, the voluntary specific workplan for biodiversity in cold-water areas within the jurisdictional scope of the Convention. The workplan builds upon the elements of a workplan on physical degradation and destruction of coral reefs, including cold-water corals, and in close linkage with relevant work under the Convention, such as the description of areas meeting the scientific criteria for ecologically or biologically significant marine areas. The COP encouraged Parties, other Governments and competent intergovernmental organizations, where applicable, within their respective jurisdictions and mandates and in accordance with national circumstances, to implement the activities contained in the workplan, which include actions to further strengthen current efforts at the local, national, regional and global levels to avoid, minimize and mitigate the impacts of global and local stressors, and especially the combined and cumulative effects of multiple stressors, to maintain and enhance the resilience of ecosystems in cold-water areas in order to contribute to the achievement of Aichi Biodiversity Targets 10, 11 and 15, to identify and protect refugia sites, and areas capable of acting as refugia sites and to adopt, as appropriate, other area-based conservation measures, in order to enhance the adaptive capacity of cold-water ecosystems.

7. At its twelfth meeting, COP adopted, through decision XII/23, the priority actions to achieve Aichi Biodiversity Target 10 for coral reefs and closely associated ecosystems (available at: https://www.cbd.int/doc/publications/cbd-aichi-target-10-en.pdf). The priority actions aim to address the urgent need to consolidate and further strengthen current efforts at local, national, regional and global levels to manage coral reefs as socio-ecological systems undergoing change due to the interactive effects

of multiple stressors, including both global stressors (including climate change and ocean acidification) and local stressors (overfishing, destructive fishing practices, coastal development, tourism and recreational use).

8. Pursuant to decision XII/23, the Secretariat is presently developing a global coral reef portal, in collaboration with existing global (e.g., the International Coral Reef Initiative) and regional initiatives (e.g., the Coral Triangle Initiative on Coral Reefs and Fisheries and Food Security), to facilitate technical collaboration and voluntary information-sharing on all aspects of sustainable management of coral reefs and related ecosystems.

9. At its eleventh meeting in 2012, the COP, through decision XI/18, took note of the voluntary guidelines for the consideration of biodiversity in environmental impact assessments and strategic environmental assessments annotated specifically for biodiversity in marine and coastal areas, which includes guidance on taking into account the cumulative effects of environmental changes such as climate change and ocean acidification when conducting environmental impact assessments in marine and coastal areas. .

Relevant Technical Reports Produced by the Secretariat

10. The Secretariat has produced a number of reports and background documents relevant to climate change adaptation, in particular with regards to the conservation and management of marine and coastal biodiversity and habitats.

11. In 2012, the Secretariat produced CBD Technical Series No. 68: Marine Spatial Planning in the Context of the Convention on Biological Diversity (available at: https://www.cbd.int/doc/publications/cbd-ts-68-en.pdf), which provides a review of the challenges, barriers and approaches to marine spatial planning as a means to ensure conservation and sustainable use and to minimize and mitigate the impacts of key stressors, including climate change and ocean acidification, on marine and coastal biodiversity.

12. In 2015, the Secretariat produced CBD Technical Series 76: Integrated Coastal Management for the Achievement of the Aichi Biodiversity Targets: Practical Guidance for Implementation Based on Experience and Lessons Learned from Coastal and Ocean Governance in the Seas of East Asia (available at: https://www.cbd.int/doc/publications/cbd-ts-76-en.pdf), which discusses experiences, best practices and lessons learned from the implementation of integrated coastal management in the Seas of East Asia, including the use of integrated coastal management as an essential tool for climate change adaptation.

13. Pursuant to COP decision XII/20, the Secretariat produced CBD Technical Series 85: Synthesis Report on Experiences with Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction (available at: https://www.cbd.int/doc/publications/cbd-ts-85-en.pdf). The report includes findings from the CBD Technical Workshop on Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction, held in South Africa in 2016.

14. In order to support the deliberations of the Subsidiary Body on Scientific, Technical and Technical Advice (SBSTTA) at its twentieth meeting and the COP at its thirteenth meeting with regards to the voluntary specific workplan on biodiversity in cold-water areas within the jurisdictional scope of the Convention, the Secretariat produced an information document on biodiversity and acidification in cold-water areas (available at: https://www.cbd.int/doc/meetings/sbstta/sbstta-20/information/sbstta-20-inf-25-en.pdf).

15. In order to support the deliberations of the Subsidiary Body on Scientific, Technical and Technical Advice (SBSTTA) at its twentieth meeting and the COP at its thirteenth meeting with regards to biodiversity and climate change, the Secretariat produced an information document providing guidance on enhancing positive and minimizing negative impacts on biodiversity of climate change adaptation

activities (available at: https://www.cbd.int/doc/meetings/sbstta/sbstta-20/information/sbstta-20-inf-01-en.pdf).

CLIMATE CHANGE MITIGATION AND IMPLICATIONS FOR BIODIVERSITY

COP 13 Decision XIII/4 on Biodiversity and Climate Change

16. At its thirteenth meeting in 2016, the COP adopted decision XIII/4 on biodiversity and climate change, which addresses a number of elements related to climate change mitigation. In this decision, COP takes note of the potential for synergies between climate change adaptation and mitigation measures in the conservation of biological diversity and disaster risk reduction in all ecosystems, and encourages the recognition of the role of protected areas and other effective area-based conservation measures as cost-effective instruments for climate change adaptation and mitigation and the consideration of the status of biodiversity and its vulnerability to current and future climate change impacts when planning and implementing ecosystem-based approaches to climate change mitigation.

COP 13 Decision XIII/14 on Climate-Related Geoengineering

17. At its thirteenth meeting in 2016, the COP adopted decision XIII/14 on climate-related geoengineering. In this decision, COP reaffirmed paragraph 8, in particular its subparagraph (w), of decision X/33, and decision XI/20, which invite Parties and other Governments to ensure, in line and consistent with decision IX/16 C, on ocean fertilization and biodiversity and climate change, in the absence of science based, global, transparent and effective control and regulatory mechanisms for geo-engineering, and in accordance with the precautionary approach and Article 14 of the Convention, that no climate-related geo-engineering activities that may affect biodiversity take place, until there is an adequate scientific basis on which to justify such activities and appropriate consideration of the associated risks for the environment and biodiversity and associated social, economic and cultural impacts, with the exception of small scale scientific research studies that would be conducted in a controlled setting in accordance with Article 3 of the Convention, and only if they are justified by the need to gather specific scientific data and are subject to a thorough prior assessment of the potential impacts on the environment.

18. In the same decision, the COP also noted that more transdisciplinary research and sharing of knowledge among appropriate institutions is needed in order to better understand the impacts of climate-related geoengineering on biodiversity and ecosystem functions and services, socio-economic, cultural and ethical issues and regulatory options.

Relevant Technical Reports Produced by the Secretariat

19. The Secretariat has produced a number of reports and background documents relevant to climate change adaptation, in particular with regards to the conservation and management of marine and coastal biodiversity and habitats.

20. In 2016, the Secretariat produced CBD Technical Series No. 86: Managing Ecosystems in the Context of Climate Change Mitigation—A review of current knowledge and recommendations to support ecosystem-based mitigation actions that look beyond terrestrial forests (available at: https://www.cbd.int/doc/publications/cbd-ts-86-en.pdf). The report summarizes current knowledge on the potential of ecosystems to contribute to climate change mitigation, including knowledge on capacity of existing management techniques for peatlands, grasslands and savannahs, coastal ecosystems and croplands to sustain and enhance carbon stocks and carbon sequestration.

21. In 2016, the Secretariat produced CBD Technical Series No. 84: Update on Climate Geoengineering in Relation to the Convention on Biological Diversity: Potential Impacts and Regulatory Framework (available at: https://www.cbd.int/doc/publications/cbd-ts-84-en.pdf). The report focuses on

providing an update on the potential impacts of geoengineering techniques on biodiversity together with an account of regulatory developments

22. In 2009, the Secretariat produced CBD Technical Series No. 45: Scientific Synthesis of the Impacts of Ocean Fertilization on Marine Biodiversity (available at: https://www.cbd.int/doc/publications/cbd-ts-45-en.pdf). The report investigates the scientific basis of concerns regarding the implications of ocean fertilization for marine biodiversity with a view to providing an objective synthesis and analysis of the impacts of ocean fertilization on marine biodiversity.

CAPACITY BUILDING ACTIVITIES

23. In decision X/29, COP emphasized the need for training and capacity building of developing country Parties through workshops that contribute to sharing experiences and knowledge related to the conservation and sustainable use of marine and coastal biodiversity. Pursuant to this need, the Sustainable Ocean Initiative (SOI) was formed on the margins of the tenth meeting of the COP in 2010. SOI, the implementation of which is coordinated by the CBD Secretariat in collaboration with various partners, provides a global platform to build partnerships and enhance capacity to achieve Aichi Biodiversity Targets related to marine and coastal biodiversity. SOI facilitates, through partnerships, information-sharing, targeted capacity-building to support implementation, enhancing interactive communication among stakeholders in different sectors, and monitoring progress on the Aichi Biodiversity Targets related to marine and coastal biodiversity. Refer to Sustainable Ocean Initiative Action Plan 2015-2020 for further details (available at https://www.cbd.int/doc/?meeting=SOIOM-2014-02).

24. SOI focuses on assisting Parties in achieving a balance between the conservation and sustainable use of marine and coastal biodiversity and addressing capacity needs to enhance cross-sectoral conservation and sustainable use of biodiversity in marine and coastal areas, including to address the impacts of pressures such as climate change and ocean acidification.

SUPPORTING INTERGOVERNMENTAL PROCESSES RELATED TO OCEANS AND CLIMATE CHANGE

UN Framework Convention on Climate Change (UNFCCC)

25. In line with COP decision XII/20, the Secretariat has taken an active role in promoting ecosystem-based approaches to climate change adaptation and disaster risk reduction in cooperation with relevant organizations, including the United Nations Framework Convention on Climate Change. In this regard, the Secretariat has provided support to inform the UNFCCC deliberations with regards to these issues, as well as convened and co-organized a number of events during meetings of the UNFCCC.

Sendai Framework for Disaster Risk Reduction 2015-2030

26. The Sendai Framework for Disaster Risk Reduction 2015-2030, adopted in 2015, serves as the global framework to guide disaster risk reduction efforts. The COP has adopted decisions relating to disaster risk reduction, notably decision XII/20 that encourages Parties to incorporate disaster risk reduction into relevant national plans and strategies.