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STATUS OF INITIATIVES LINKING BIODIVERSITY AND CLIMATE CHANGE IN THE INTERNATIONAL YEAR OF BIODIVERSITY

Note by the Executive Secretary

The present note provides an update on the status of ongoing initiatives linking biodiversity and climate change and includes an analysis of the implications for the Convention on Biological Diversity (CBD) of the outcome of the United Nations Framework Convention on Climate Change (UNFCCC) 15th Conference of the Parties (COP) held in Copenhagen, December 2009 (Annex 1). Details about recent work under the Joint Liaison Group are provided in the In-depth review of the work on biodiversity and climate change1.

INTRODUCTION

It is now widely recognized that climate change and biodiversity are interconnected, not only through the effects of climate change on biodiversity, but also through changes in biodiversity and ecosystem functioning that affect climate change. The carbon cycle and the water cycle, arguably the two most important large-scale processes for life on Earth, both depend on biodiversity—at genetic, species and ecosystem levels. Mounting evidence shows that global prosperity and human well-being depend on the productivity of the world's ecosystems and the services they provide, with biodiversity forming the essential building blocks of ecosystems, as such ensuring their health and resilience2.

The prospect of irreversible climate change adds to the urgency of achieving the objectives of the CBD, UNFCCC and the United Nations Convention to Combat Desertification (UNCCD), noting the additional challenge of continuing climate change also poses to the achievement of the Millennium Development Goals (MDGs). The world is committed to significant climate change,

1 UNEP/CBD/SBSTTA 14/6. Information about Secretariat engagement at UNFCCC COP 15 is at www.cbd.int/climate/copenhagen

2 Draft 29-12-09 Nusa Dua Declaration. Global Ministerial Environment Forum. 24-26 February. http://www.unep.org/GC/GCSS-XI/

even if rapid progress is achieved towards a low carbon economy. The growing threats from climate change will mainly affect populations that are already challenged by multiple vulnerabilities associated with low levels of economic and human development. Climate change is already multiplying vulnerabilities in developing countries by heightening livelihood risks and further weakening adaptive capacities3. The 2009 Global Assessment Report on Disaster Risk Reduction highlighted the need to strengthen capacities to address poor urban governance, vulnerable rural livelihoods and ecosystem decline4.

On the heels of the UNFCCC COP 15, the 2010 International Year of Biodiversity presents a unique opportunity to:

- promote the importance of biodiversity and its contributions to the achievement of the MDGs;
- raise awareness of the economics of biodiversity and ecosystems, including of marine biodiversity and marine ecosystems,
- strengthen the biodiversity and ecosystems science/policy interface, and
- enhance co-operation and coordination amongst the biodiversity-related Multi-lateral Environmental Agreements.

Parties to the Rio Conventions will increasingly be seeking to apply the broadest range of options to deal with climate change - for both mitigation and adaptation. CBD COP 9 Decision IX/27 (para 8) requests the Executive Secretary to continue to liaise with the conventions, organizations and initiatives with a view to advancing implementation of the Convention in accordance with the decisions of the Conference of the Parties, including the development of joint activities as appropriate.

With these issues in mind, and to further enhance the synergies and joint activities of the Rio Conventions, as per United Nations (UN) General Assembly Resolution 64/203 of 21 December 2009 which calls for enhanced cooperation between the Rio Conventions5, the Secretariat is currently progressing a number of key initiatives linking biodiversity and climate change as the International Year of Biodiversity unfolds, including:

- proposing the joint development in 2011 of a Rio Conventions' work programme on biodiversity, climate change and land degradation (Annex 2 - UNEP/CBD/SBSTTA 14/6 Add.2);
- coordinating panels on climate change and biodiversity as well as biodiversity for development and poverty alleviation at the High Level Event of the 65th session of the United Nations General Assembly, September 2010 in New York;
- convening, in collaboration with the UNFCCC and UNCCD secretariats, an Ecosystems and Climate Change Pavilion to be held at the forthcoming COPs of the Rio Conventions (advancing CBD COP 9 Decision IX/16 on enhanced awareness-raising and outreach in the framework of the Rio Conventions). This activity would also involve the UNEP, UNDP, and other international organizations, including the IUCN;

3 UN World Economic and Social Survey 2009: Promoting Development, Saving the Planet, p. 18.

4 Risk and poverty in a changing climate, 2009 Global Assessment Report on Disaster Risk Reduction. UN International Strategy for Disaster Reduction.

5 UN General Assembly Resolution 64/203 issued 21 December 2009 noted the need for enhanced cooperation between the Rio Conventions, concerned by negative impacts that loss of biodiversity, desertification, land degradation and climate change have on each other, and recognising the potential benefits of complementarities in addressing these problems in a mutually supportive manner with a view to achieving the objectives of the Convention on Biological Diversity.

- through Lifeweb (the Secretariat's brokerage initiative for financing protected areas), developing tools to link the planning of national protected area creation and management with climate change mitigation and adaptation strategies, to complement REDD-plus and adaptation initiatives emerging under the UNFCCC;
- Based on a Memorandum of Understanding signed between the United Nations Forum on Forests Secretariat and the CBD Secretariat on 15 December 2009, an extension of regional capacity building workshops on forest biodiversity and climate change, including biodiversity and indigenous benefits of REDD-plus, is foreseen for 2010 and 2011, subject to resources.
- Highlighting further the critical risks to coral reefs from climate change
- Launching a website on ecosystem-based adaptation containing over 600 case studies and best practice examples covering every region and programme of work; and
- Convening, under the chairmanship of the CBD, the tenth meeting of the Joint Liaison Group of the three Rio Conventions

In addition, several draft recommendations to be discussed at the 14th meeting of the Subsidiary Body on Science, Technical and Technological Advice (SBSTTA-14) and being considered by the Working Group on the Review of the Implementation (WGRI) would open new opportunities for collaboration with partners, including the Rio Conventions, on linking the issues of biodiversity, climate change, and poverty alleviation.

SUGGESTED RECOMMENDATIONS

COP9 Bureau may wish

1. To take the lead in convening a joint meeting of the COP Bureau of UNCCD, UNFCCC and the CBD at a mutually agreed time to discuss the joint collaboration between the three Rio Conventions in the context of the preparations of their upcoming COPs (CBD COP 10, Japan October 2010; UNFCCC COP 16, Mexico 2010; UNCCD COP 10, Korea Fall 2011).

2. To invite COP UNFCCC 15 for a joint meeting on 18 October 2010, prior to the COP 10 in Nagoya, Japan, and encourage the UNFCCC COP16 President to convene a joint meeting of the CBD COP 10 Bureau and UNFCCC COP 16 Bureau in Mexico in December 2010

3. To recommend a joint meeting of the CBD SBSTTA Bureau, the chair of the UNFCCC SBSTA 32 and the chair of the UNCCD CST in June 2010 in Bonn to consider the pathway for joint development in 2011 of the proposed work programme on biodiversity, climate change and land degradation.

UPDATE ON THE STATUS OF SECRETARIAT INITIATIVES LINKING BIODIVERSITY AND CLIMATE CHANGE

1. To further realise synergies between the objectives of the Rio Conventions and to enhance collaboration between the Rio Conventions Secretariats, and to advance UN General Assembly Resolution 64/203 of 21 December 2009 which calls for enhanced cooperation between the Rio Conventions, the Secretariat is currently progressing a number of key initiatives linking biodiversity and climate change as the International Year of Biodiversity unfolds.

Joint Development in 2011 of a Rio Conventions' Work Programme on biodiversity, climate change and land degradation

2. To advance UN General Assembly Resolution 64/203 of 21 December 2009 which calls for enhanced collaboration between the Rio Conventions, and to further realize synergies of the Rio Conventions objectives, SBSTTA 14 will consider the pathway to developing Rio Conventions' Joint Work Programme on biodiversity, climate change and land degradation in 2011 (Annex II) for a) strengthening the linkages between ecosystem-based mitigation and adaptation measures; b) compiling and harmonizing existing information and terminology under the three Conventions; and 3) providing support for international and national level policy coherence, including on technical matters where appropriate.

3. As stated in document UNEP/CBD/SBSTTA/13/7 that compiled the views of Governments in support of enhanced collaboration between the Rio conventions, national - level activities will often provide the most efficient and effective avenue for synergies and any action to be implemented jointly should be consistent with the following: (i) respect the mandates and lega*l* status of each convention i.e. be consistent with the respective mandates, governance arrangements and agreed programmes, within existing resources; (ii) reduce unnecessary duplication, ensure added value ,improve efficiency and thus deliver savings or incur no additional costs; (iii) allow flexibility for individual countries to decide on appropriate actions based on national circumstances and priorities; and (iv) avoid additional obstacles or delays in the implementation of the provisions of each Convention.

4. The activities[6] of the joint programme of work could be articulated around 4 interlinked programme elements (i) coordinated national planning linking biodiversity, climate change and land degradation; (ii) addressing the common drivers of biodiversity loss, climate change and land degradation/desertification; (iii) understanding, monitoring, assessing and reporting; and (iv) promoting a favourable enabling environment. Refer to Annex II for further detail.

5. The Joint Liaison Group (JLG) of the Rio Conventions has yet to consider the pathway for development of this joint work programme with regard to the sequence of steps for consideration by the Conference of the Parties of each Convention and for implementation, noting that only activities that are mandated by all the governing bodies of each convention can be effectively implemented by the JLG. In the first instance, the proposal to jointly develop a Rio conventions' work programme in 2011 will be considered at the CBD SBSTTA 14 meeting in May 2010. The Executive Secretary has conveyed to the Executive Secretaries of the UNFCCC and UNCCD that SBSTTA 14 will consider this proposal with a view (if supported) to transmitting the proposal to the UNFCCC COP 16 and UNCCD COP 10.

6. To assist the consideration of this joint work programme proposal under each convention, a joint meeting of the CBD COP Bureau and UNFCCC COP Bureau in December 2010 is proposed. This meeting would consider the pathway for joint development of the proposed work programme on biodiversity, climate change and land degradation. A similar meeting with the UNCCD COP Bureau may also be desirable.

High Level Segment on Biodiversity at the 65th session of the United Nations General Assembly

7. The three suggested interactive panels of the High level segment of the 65th session of UNGA to be held in New York in September 2010 can further the cooperation among the three Rio Conventions.

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[6] Any suggested activities in Annex II are indicative, subject to confirmation by the three Rio conventions.

Rio Conventions' Ecosystems and Climate Change Pavilion

8. To advance UN General Assembly Resolution 64/203 of 21 December 2009 which calls for enhanced collaboration between the Rio Conventions and the CBD COP9 Decision IX/16 on enhanced awareness-raising and outreach in the framework of the Rio Conventions, the Secretariat proposes to convene, with the UNFCCC and UNCCD secretariats under the auspice of the Joint Liaison Group, an Ecosystems and Climate Change Pavilion to be held at the forthcoming COPs of the Rio Conventions (CBD COP 10 in Nagoya, Japan, 18-29 October 2010; UNFCCC COP 16 in Cancun, Mexico, 29 November-10 December 2010; UNCCD COP 10 in Autumn 2011 in South Korea). It is also anticipated that the Pavilion will be convened at the Rio+20 United Nations Conference on Sustainable Development to be held in Rio de Janeiro in June 2012.

9. The Ecosystems and Climate Change Pavilion will provide an enhanced, coordinated platform for awareness-raising and capacity-building about the latest findings from science and practice on the linkages between ecosystem management, landscape restoration and climate change (refer Annex 2). A particular focus will be on ecosystem-based approaches in climate change mitigation and adaptation responses. Consideration of the challenges facing biodiversity managers due to the unavoidable impacts of climate change will also be highlighted.

10. The Pavilion, which will run in parallel to the side event programme of each COP, will provide an opportunity for collaboration amongst a diverse range of players. The Secretariat, working with the UNFCCC and UNCCD secretariats, will develop a partnership structure to allow for the participation of UN agencies and other relevant international organizations as co-hosts of the pavilion, or as organizers of individual sessions, similar to the organization of thematic days and pavilions at the UNFCCC COP 15. (Refer Annex 3 for further details).

11. At the end of December 2009 and in early January, the Executive Secretary wrote to his counterparts in the UNFCCC and UNCCD to seek their involvement as co-convenors. The Executive Secretary also wrote to other key partners, namely UNEP, UNDP, IUCN, World Bank, Conservation International, WWF, the Nature Conservancy and the European Commission to seek funding and other support.

12. The Executive Secretary of the UNCCD has formally conveyed his interest in partnering with the Secretariat. The UNFCCC has not yet provided a response; the Secretariat is actively pursuing their involvement. The UNDP has informally conveyed their interest and the IUCN has expressed their commitment to being involved, especially in relation to a thematic day on protected areas7.

The SCBD's Lifeweb protected area finance brokerage

13. LifeWeb is a means to strengthen financing for protected areas to address climate change, sustain biodiversity, and achieve the Millennium Development Goals. LifeWeb was created as a mechanism as the resource mobilization arm for increased implementation of the Convention on Biological Diversity Programme of Work on Protected Areas (PoWPA), particularly in developing countries. LifeWeb delivers this support by:

a) Providing a user-friendly platform for Parties and indigenous and local communities to convey their financial needs for the creation and management of protected areas to multiple donors. These needs are based on protected area and national planning, as called for under the Programme of Work on Protected

7 as at 17 February, 2010.

Areas;

b) Supporting donors (donor countries, NGOs, private sector, foundations) with a comprehensive, transparent and up-to date overview of concrete funding needs that enables recipient ownership, as well as donor alignment and coordination, in a manner consistent with the Paris Declaration on Aid Effectiveness;

c) Serving as a facilitator and ongoing broker of information about needs and financial opportunities between donors and recipients;

d) Providing and encouraging the use of tools for countries to adopt systems of climate change impact assessments and carbon accounting in the ecological design, governance, management and financial planning of their national systems of protected areas; and

e) Increasing global literacy about the value of protected areas for climate change mitigation and adaptation, as well as recognizing donors and recipients who invest in win-win solutions for biodiversity and climate change.

14. Lifeweb promotes to donors and potential recipients the opportunities that link both efforts to reduce the loss of biodiversity with efforts to combat and adapt to climate change and enhance the realization of multiple benefits and contribute to the achievement of the MDG goals for sustainable development.

15. Recent discussions within the Secretariat have identified the potential for the Lifeweb initiative to further the objectives of the CBD and contribute to achieving synergies between the objectives of the Rio Conventions in light of the UNFCCC COP 15 outcomes. A plan of action has been recently articulated by the CBD Secretariat and UNEP UNEP-WCMC to develop a web-based tool that will visually convey synergies biodiversity and climate mitigation, as well as other ecosystem services, which will involve overlaying ecological gap analysis and carbon values. This tool will be available to focus priorities through the LifeWeb platform and contribute to REDD readiness.

16. This Lifeweb tool will enable synergies among climate change mitigation and biodiversity conservation investments in two primary ways:

a. Identifying existing protected areas and priority areas to be protected that can serve as valuable components within a more comprehensive national REDD strategy;

b. Identify areas where biodiversity conservation can be assisted by ecosystem-based mitigation in areas where UNFCCC activities are not likely to focus on in the short term. It will do so in a way to complement emerging REDD plus finance arrangements and other initiatives established under the UNFCCC.

17. To facilitate further document the importance of ecosystems and their diverse services to climate adaptation and mitigation, the Secretariat is also highlighting tools that recipients could use to assess the range and value of key ecosystem services provided through their Lifeweb activity, highlighting existing tools developed for developing country contexts. These tools include guidance on national ecological/protected area gap analysis (CBD Technical Series 24), on valuation of ecosystems services (e.g. CBD Technical Series 28 *An Exploration of Tools and Methodologies for Valuation of Biodiversity and Biodiversity Resources and Functions*, World Resources Institute's (WRI) *Ecosystem Services: A Guide for Decision Makers* 8) and

8 Note that the UNEP-WCMC is developing the '*Ecosystems and Human Well-being: A Manual for Assessment*

methodologies for REDD-plus, climate risk assessment and adaptation developed under the UNFCCC and by other international agencies.

Extension of regional capacity building workshops on forest biodiversity and climate change,

18. Based on an Memorandum of Understanding signed between the United Nations Forum on Forests Secretariat and the CBD Secretariat on 15 December 2009, an extension of regional capacity building workshops on forest biodiversity and climate change, including biodiversity and indigenous benefits of REDD-plus, is foreseen for 2010 and 2011, depending on available resources. This activity will build on the sub-regional capacity building workshop for South-Eastern Asia, in Singapore, 2-5 September 2009, which brought together biodiversity, forest, and climate change focal points and experts from 14 countries in the region, and drew on the expertise of the UN REDD Programme (FAO, UNEP and UNDP), IUFRO, ITTO, CIFOR, and IUCN to provide a holistic training on forest-based climate change mitigation and adaptation measures 9.

Launch of ecosystem-based adaptation website

19. The website on ecosystem-based adaptation, which contains over 600 case studies and best practice examples covering every region and programme of work will be launched in March 2010. It complements the Adaptation Learning Mechanism 10, a UNDP web-based platform that captures and disseminates experiences and good practices in adaptation and the UNDP's Country Adaptation Profiles Database, a UNDP-developed tool hosted by the Adaptation Learning Mechanism which provides information on climate change and national initiatives for over 140 countries. It also complements the new Partners and Pledges Database developed by the UNFCCC under the Nairobi work programme (NWP) which provides easy access to information by NWP work area, sector, region and adaptation delivery activity11.

Tenth meeting of the Joint Liaison Group (JLG) of the three Rio Conventions

20. The 9th meeting of the JLG was held in May 2009. A suitable date and venue is being explored. It is proposed that this be held a month or so after the CBD SBSTTA 14 meeting.

Coral reefs and climate change -

21. The Secretariat released in December 2009 two technical series reports relating to the marine environment and climate change: CBD TS No.45 Scientific Synthesis of the Impacts of Ocean Fertilisation on Marine Biodiversity and CBD TS No. 46 Scientific Synthesis of the Impacts of Ocean Acidification on Marine Biodiversity. Note the SCBD is aware of process lead by London Zoological Society (LZS) in relation to the development of a coral reef emergency strategy with the intention of presenting the strategy to CBD COP 10. The strategy is expected to address the themes of protection of coral reef biodiversity, the mitigation of climate change and other impacts, and the likely socio-economic consequences of large-scale coral reef degradation in the face of

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Practitioners', a 'how to' guide for assessment practitioners especially at sub-global scales, that will complement WRI's *Ecosystem Services: A Guide for Decision Makers* – visit the UNEP-WCMC website for further information at http://www.unep-wcmc.org/eap/ma-manual.aspx.

9 A report on the Singapore workshops is available at www.cbd.int/meetings).

10 http://www.adaptationlearning.net/

11 Available at http://unfccc.int/adaptation/nairobi_work_programme/partners_and_action_pledges/items/5005.php

continued climate change. As part of their consultation process to develop the strategy, the LZS will convene, in collaboration with TEEB and GLOBE, a one-day workshop in May 2010. They are also engaging in the development of the Convention's new Strategic Plan with regard to coral reefs.

CONCLUSION

22. Given the increased urgency of achieving the objectives of the CBD, UNFCCC and the UNCCD, and noting the additional challenge that continuing climate change also poses to the achievement of the MDGs, particularly for highly vulnerable developing countries, there are some steps the COP Bureau can take to enhance linkages between biodiversity, climate change and development policy and planning by further strengthening the synergies between Rio Conventions.

23. Key opportunities for the COP Bureau for addressing key gaps in activities to progress the integration of biodiversity in climate change planning include, in the context of coherence and synergies between Rio Conventions: 1) development of REDD-plus methodology for achieving biodiversity, indigenous and climate change benefits; 2) capacity building, in collaboration with the Rio Convention Secretariats and the Collaborative Partnership on Forests, on biodiversity issues of REDD-plus and forest-based adaptation; and 3) the development of climate change adaptation planning approaches that integrate ecosystem-based approaches as part of the range of options considered by developing countries to reduce their climate risk.

24. Also, with regard to climate change, Parties to the CBD have acknowledged both the need to facilitate biodiversity adaptation and the contribution of biodiversity to broader adaptation activities, particularly for the most vulnerable regions and ecosystems (CBD COP 9 Decision IX/16). They have identified ocean acidification and ocean fertilization as potentially serious threats to cold-water corals and other marine biodiversity (CBD COP 9 Decision IX/16 element C).

25. Bearing in mind these COP Decisions, and the recent developments under the UNFCCC, the COP Bureau can seek to establish a joint expert group with the UNFCCC and UNCCD to address immediate needs for implementation of national level synergies between the Rio Conventions with priority given to: 1) development of REDD-plus methodology for achieving integration of biodiversity, indigenous and climate change benefits; and 2) development of climate change adaptation planning approaches that integrate ecosystem-based approaches as part of the range of options considered by developing countries to reduce their climate risk.

Annex I

ANALYSIS OF THE IMPLICATIONS FOR THE CBD OF THE OUTCOME OF THE UNFCCC COP15

UNFCCC COP 15 and the Copenhagen Accord

1. The UNFCCC COP 15 held in Copenhagen 7-18 December 2009 was the largest UN meeting with over 45 000 delegates registered . With over 110 world leaders present in the final days, the UNFCCC COP 15 presented a unique moment in history.

2. The degree of engagement in the UNFCCC COP highlighted: i) the central role climate change now has in national and international policy, including in development planning; ii) widespread recognition of the need for major countries not only to mitigate their own GHG emissions but to find the enormous resources, both public and private, necessary to help the most vulnerable countries adapt to the unavoidable impacts of drought, flooding, migration and other climate change impacts; iii) the heightened public awareness of climate change; and iv) an increasing recognition that 'green growth' is an emerging economic model that is good for business, especially as a number of developed and developing countries are moving forward with low-carbon economic plans. There also significant opportunities with regard to climate change adaptation.

3. However, many developing nations, including Tuvalu, Sudan, Venezuela, Bolivia and Cuba, denounced the agreement due to its low level of ambition. Thus the UNFCCC adopted a decision proposing the COP 'take note' of the Accord rather than adopt the Accord. As at 1 February 2010, 55 Parties, which together account for 78 per cent of global emissions from energy use, had associated with the Copenhagen Accord 12.

4. To be reviewed in 2015, the Copenhagen Accord[13] (the Accord) represents a framework developed by a group of nations, developed and developing, articulating commitments to emission reductions, to long-term finance, transparent reporting, and a prompt start for developing country action that has never before been achieved.

5. In brief, through the Accord, associated countries agreed to work toward a common, long-term goal to limit mean global temperature rise to below 2° Celsius with a review of emission reduction target commitments to be reviewed in 2015 to account for new scientific evidence [14] . Developed countries have committed to establish and implement targets for greenhouse gas emissions, and a number of developing countries, including major emerging economies, have agreed to implement nationally appropriate mitigation actions and communicate their efforts every two years.

6. In addition, the Accord stresses the need to establish a comprehensive adaptation programme. Developed countries agreed to provide comprehensive support to the most vulnerable (e.g. Least Developed Countries (LDCs), Small Island Developing States (SIDS) and Africa) to cope with to support adaptation and mitigation measures in developing countries, including support for reduced emissions from deforestation and forest degradation (REDD-plus).

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12 Refer to http://unfccc.int/files/press/news_room/press_releases_and_advisories/application/pdf/pr_accord_100201.pdf

13 http://unfccc.int/files/meetings/cop_15/application/pdf/cop15_cph_auv.pdf

14 The IPCC 5th Assessment Report is due for release in 2014. Also, the IPCC will complete in 2011 a Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. The IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation will be released in late 2010.

To support these priorities, countries pledged up to $30 billion a year between 2010 and 2012. This includes combined commitments US$3.5 billion as initial public finance to slow, halt and eventually reverse deforestation and forest degradation in developing countries. The Accord also includes the goal of mobilizing an additional US$100 billion a year by 2020. A more detailed summary about the Accord is at Annex 2.

Implications of the Copenhagen Accord for the implementation of the Convention on Biological Diversity

7. The Millennium Ecosystem Assessment identified climate change as a significant and escalating risk to biodiversity. Failure to tackle global climate change on an international basis to effectively minimize the risk of dangerous climate change in the coming years has, therefore, the potential to put the achievement of the objectives of the CBD and of the MDGs beyond reach15;16.

8. Of growing significance are the increased opportunities for including ecosystem-based approaches in both climate change mitigation and adaptation planning. Enhanced integration of ecosystems-based approaches at the national level will provide important opportunities to achieve synergies of the objectives of the Rio Conventions and provide key mechanisms for strengthening linkages between biodiversity, climate change and sustainable development.

Commitments relating to emission reduction targets and timing of peak emissions

9. Commitments such as those in the Copenhagen Accord to emissions targets to stabilize global average temperatures to not more than 2 degrees C above pre-industrial levels are highly important to the CBD as successful achievement of this target will influence the frequency and magnitude of climate change impacts experienced by biodiversity and ecosystems as global average temperatures rise. Even at 2 degrees C, however, the Intergovernmental Panel on Climate Change and the Ad hoc Technical Expert Group on Biodiversity and Climate Change project that roughly 20% of assessed species will face increased risks of extinction. These, in combination with a range of other stressors, will exacerbate the already significant loss of global biodiversity17.

10. For example, climate change is already a current threat for the World Heritage-listed Great Barrier Reef (GBR)18. Ocean acidification is accelerating, potentially disrupting the ecology of the world's oceans, resulting in severe socio-economic impacts on fisheries and other marine industries19. The effects of atmospheric concentrations above 450 parts per million CO2 equivalent and the consequent likely temperature increase of more than 2 °C on the GBR will likely be devastating, particularly given the impacts observed so far with only one-third this amount of warming2021.

11. A significant gap remains between countries combined emission reduction pledges and what would be required to reliably avert the risks of disruptive changes in ecosystems and from

15 World Development Report 2010 World Bank. Available at http://siteresources.worldbank.org/INTWDR2010/Resources/WDR10-Main-Messages.pdf

16 UN World Economic and Social Survey 2009: Promoting Development, Saving the Planet.

17 Third Global Biodiversity Outlook Synthesis Report. To be released in May 2010.

18 Great Barrier Reef Vulnerability Assessment 2007 and Great Barrier Reef Outlook Report 2009.

19 CBD Technical Series 46 Scientific Synthesis of the Impacts of Ocean Acidification on Marine Biodiversity. At http://www.cbd.int/doc/publications/cbd-ts-46-en.pdf

20 Emissions Reduction Targets and the Great Barrier Reef Nov 2009. Statement by FASTS GBR Alliance available at http://www.fasts.org/images/news2009/statement%20by%20fasts%20gbr%20climate%20change%20alliance.pdf

21 Great Barrier Reef Outlook Report 2009. Great Barrier Reef Marine Park Authority, Townsville, Queensland

climate change[22] [23]. Thus, biodiversity policy makers should be encouraged to apply a precautionary, risk management approach to biodiversity conservation and management that reflects the likelihood of a mean global temperature rise of 3 degrees C or more above pre-industrial levels by 2100, including consideration of the worst-case scenario of runaway climate change[24]. A scenarios-based risk management approach would also need to consider the effectiveness of current arrangements and instruments for conserving and managing biodiversity and the achievement of the CBD objectives in a changing climate[25]. Coherent guidance for biodiversity decision-makers on climate change scenarios for risk management in national biodiversity planning and management do not currently exist.

12. Also, further regional assessments of the implications for implementation of the CBD as temperature rises in the next 10, 20, 50 years are needed, noting that the effects of climate change are already evident, including identifying 'points of no return' for biodiversity and ecosystem services. These assessments would be particularly important to undertake in regions of the world which are highly vulnerable to climate change, are highly reliant on services provided by biodiversity and ecosystems for their livelihoods and do not have the economic means to adapt quickly or comprehensively. These assessments would also be of relevance in the context of climate change adaptation planning, disaster risk reduction and development planning and would be an important task for an Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) to undertake in consultation with the IPCC.

13. The increased risk to biodiversity imposed by continuing and unavoidable climate change strengthens the need for the establishment of an IPBES within the next few years to provide enhanced knowledge about the cumulative effects of climate change and other stressors that result in biodiversity and ecosystem services loss. It also strengthens the case for the establishment of a World Environment Organisation as per renewed calls for such an organization by France and Germany in the lead up to UNFCCC COP 15.

Resources and technology to support adaptation and mitigation measures in developing countries, including support for reduced emissions from deforestation and forest degradation (REDD-plus)

14. Parties to the Rio Conventions will increasingly be seeking to apply the broadest range of options to deal with climate change – for both mitigation and adaptation. Protecting and enhancing ecosystem resilience through biodiversity and ecosystem service conservation, management and restoration, are amongst the most cost effective ways of tackling both the causes and consequences of climate change.

15. On actions for reducing emissions from deforestation and forest degradation, CBD COP decision IX/5 called up Parties to ensure that REDD measures do not run counter to the objectives of the CBD, support the implementation of the programme of work, provide benefits for forest biodiversity and to indigenous and local communities, involve biodiversity experts including holders of traditional forest-related knowledge, and respect the rights of indigenous and local communities (CBD COP Decision IX/5, para 2a). Some specific recommendations how to achieve these 'co-benefits' has been developed by the AHTEG on climate change and

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22 Project Catalyst 2009. Taking stock – the emission levels implied by the current proposals for Copenhagen Briefing paper, 7 Dec 2009. At http://www.project-catalyst.info/images/publications/taking_stock.pdf. See also the Climate Action Tracker at http://www.climateactiontracker.org/

23 Ecofys. 2009. Copenhagen Climate Deal – How to close the Gap At http://www.climateactiontracker.org/

24 Steffen et al, 2009. Assessing the Vulnerability of Australia's Biodiversity to Climate Change- summary for policy makers.

25 See p. 124-131 of the World Development Report 2010 (World Bank 2009). Focus B - Biodiversity and ecosystem services in a changing climate. Available at http://siteresources.worldbank.org/INTWDR2010/Resources/5287678-1226014527953/Focus-B.pdf

biodiversity. However, concrete methodological issues on the achievement and monitoring of biodiversity and indigenous benefits of REDD-plus would need to be elaborated.

16. The Copenhagen COP adopted methodological guidance relating to REDD-plus, which includes the recognition of the importance of co-benefits, including biodiversity, and the need for full and effective participation of indigenous peoples and local communities. The Copenhagen COP agreed to a decision calling for its scientific body (SBSTA) to develop further guidance on methodological issues to implement REDD. The REDD decisions provide a significant opportunity for the CBD, hence the proposal in the draft joint work programme of the Rio Conventions for joint technical work on REDD plus and biodiversity. Such work could build on awareness raising efforts already undertaken including the CBD REDD newsletter and the joint publication by the UNFCCC, UNCCD and CBD on Forests – Biodiversity, Climate Change and Land Degradation.

17. An increasing number of developing countries are developing or reviewing national adaptation plans to decide on how best to reduce vulnerabilities to climate change impacts, and on how adaptation practices can be implemented in the most effective manner. Many national adaptation plans have focused on climate-proofing infrastructure projects, such as transport and irrigation systems, improved disaster monitoring and management and better land-use planning. A majority also contain links to biodiversity and/or ecosystem services, especially with regards to marine areas, forests and watersheds.

18. More lasting success will depend on adopting smarter development policies which link adaptation more tightly to ongoing efforts to remove existing vulnerabilities and constraints on growth and development. Such approaches will need to use small and large-scale adaptation projects in both the rural and urban sectors to create jobs, achieve economic diversification and trigger faster growth. There is an important role for biodiversity conservation and ecosystem management in these plans, especially in the context of integrated national planning, bringing together climate change, biodiversity and development planning[26]. The proposed joint work programme between the Rio Conventions includes technical work to expand the role of ecosystems-based approaches in climate change adaptation, including under the Nairobi work programme and the linked areas of climate change, disaster risk reduction and development planning. This could involve the preparation of guidance for Parties regarding how to enhance linkages between national biodiversity planning, climate change adaptation planning and development planning.

19. Within the UNFCCC's discussion on technology development and transfer to scale up both soft and hard technologies for mitigation and adaptation, it will be important to minimise the adverse impacts of these responses on biodiversity and the provision of key ecosystem services. For example, some of the geo-engineering options currently being discussed by the scientific community may have significant negative impacts on biodiversity – the CBD COP 9, for example, called for the precautionary approach to be applied to ocean fertilization activities given uncertainty over its impacts on marine biodiversity and associated ecosystem services with potential implications for not only biodiversity but also food security[27].

20. Tools for identifying the impacts of climate change response measures on biodiversity include strategic environmental assessments (SEA), environmental impact assessments (EIA), and technology impact assessments that facilitate the consideration of all mitigation and

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[26] OECD. 2009. OECD Policy Guidance on Integrating Climate Change Adaptation into Development Co-operation. At http://www.oecd.org/document/40/0,3343,en_2649_34421_42580264_1_1_1_1,00.html.

[27] See CBD Technical Series 45 Scientific Synthesis of the Impacts of Ocean Fertilization on Marine Biodiversity. Available at http://www.cbd.int/doc/publications/cbd-ts-45-en.pdf

adaptation options[28]. Effective use of these tools at national and sub-national level would reduce the risk of climate change actions that are ultimately mal-adaptive as they undermine the resilience of ecosystems and their ability to provide services in the face of climate change and other stressors.

Climate finance mechanisms to help developing countries implement mitigation and adaptation

21. The influx of significant funds prioritized for climate change mitigation and adaptation, both the 'fast start' funds of up to 30 billion USD between 2010 and 2012 and the envisaged 100 billion USD per year by 2020, presents opportunities to assist implementation of the CBD, especially where multiple benefits of biodiversity and ecosystem services can complement and enhance mitigation and adaptation action through ecosystem-based approaches.

22. In the near term, this will be realizable in forest ecosystems in the context of REDD-plus implementation under the UNFCCC. The CBD can both facilitate the optimization of biodiversity benefits achieved under REDD-plus, and also further develop ways and means to enhance biodiversity benefits in ecosystems that are not likely to be the focus of REDD activities. In both activities, it is important to stress the dual mitigation and adaptation benefits of ecosystem-based approaches.

23. For example, the Secretariat's Lifeweb protected area funds brokering initiative for financing of protected areas is linking national protected area planning with both climate change mitigation and adaptation planning to broaden the range and extent of biodiversity and ecosystems that may be protected through bundling of a range of ecosystem services, including carbon sequestration. This approach is particularly suited to further develop policy-relevant methods to identify and quantify the benefits to human well-being provided by biodiversity and associated ecosystems (see later).

24. Lifeweb is an example of how the Secretariat is promoting the ecosystem-based approaches to climate change mitigation and adaptation as cost effective options to consider in national planning for climate change, particularly for developing countries. Such synergies could be further enhanced through closer collaboration of the Rio Conventions to enhance linkages between climate change and biodiversity in national planning, including to address issues pertaining to assessing ecosystem services that are relevant to the Conventions and the achievement of MDGs for sustainable development. This latter issue is included in the draft joint work programme on climate-resilient ecosystems and development (see later).

25. On 12 February 2010, the UN Secretary-General announced establishment of the UN high-level Advisory Group on Climate Change Financing to mobilize the financing promised for climate change during the UN Climate Change Conference in Copenhagen last in December 2009[29]. The Group, which will be co-chaired by Prime Minister Meles Zenawi of Ethiopia and Prime Minister Gordon Brown, United Kingdom, will develop practical proposals on how to significantly scale-up long-term financing for mitigation and adaptation strategies in developing countries from various public as well as private sources. The Group will, in particular, focus on the need for new and innovative long-term sources of finance in order to fill the gap in international climate financing.

26. The issue of funding for climate change and biodiversity will be taken up at COP-10 in response to the request to the Executive Secretary to develop proposals in collaboration with the GEF as outlined in CBD decision IX/16.

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28 See the OECD 2008. Development Assistance Committee SEA and Climate Change Adaptation Advisory Note. At http://www.oecd.org/dataoecd/0/43/42025733.pdf

29 See statement at http://www.un.org/News/Press/docs//2010/sgsm12740.doc.htm

Reassessment of the Accord by 2015

27. Assessment of the implementation of the Accord by 2015 (and post the Rio+20 World Summit to be held in Brazil in 2012) would provide an opportunity to:

a. adjust mitigation targets in light of the science emerging from the preparation of the IPCC Fifth Assessment Report which will also include new knowledge about the implications of climate change for natural ecosystems. Adjustment of mitigation targets to limit the change in global mean temperature by 2100 to 1.5-degree Celsius increase from pre-industrial levels would help to reduce the overall stress burden placed on biodiversity and ecosystems. It would also reduce the climate risk of many least developed countries.

b. further strengthen issues relevant to maintaining climate-resilient ecosystems and minimising mal-adaptation, and to include utilising ecosystem-based approaches for climate change mitigation and adaptation across a broad range of ecosystems, including a recognition of the carbon sequestration contribution of non-forest ecosystems.

28. The High Level Segment of the 65th session of UNGA in September 2010 presents an important opportunity to promote the initiative of a joint work programme of work of the three Rio Conventions. The UNFCCC COP16 to be held one month after COP10 of the CBD should also offer a unique opportunity under Mexico leadership to promote a strong partnership between the Rio Conventions.