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COMPILATION OF VIEWS FROM PARTIES ON WAYS TO INTEGRATE BIODIVERSITY CONSIDERATIONS IN CLIMATE-CHANGE RELATED ACTIVITIES

Note by the Executive Secretary

EXECUTIVE SUMMARY

1. The present note summarizes views submitted by Parties on ways to integrate biodiversity considerations into climate change-related activities as requested through decision IX/16 section B paragraph 14. The views relate to the impacts of climate change on biodiversity and the enhancement of links between climate change mitigation and adaptation and biodiversity.

2. Every Party submitting views highlighted ways to integrate biodiversity considerations within climate change adaptation. Views on activities to ensure that biodiversity is best able to adapt to climate change included (i) enhancing and expanding protected areas networks, (ii) controlling invasive alien species, (iii) improving monitoring and evaluation, and (iv) enhancing the natural adaptive capacity of species and ecosystem. Views also highlighted tools through which biodiversity can contribute to broader adaptation activities across a variety of sectors including through planning and policies.

3. Throughout the submissions, Parties emphasized the need for adaptive management, good baseline information, and the involvement of all relevant stakeholders. Parties also closely tied biodiversity and climate change adaptation to the continued provision of ecosystem services and to livelihoods.

4. A number of views submitted by Parties acknowledged that the conservation and sustainable use of biodiversity can serve as a cost-effective and low-risk mitigation option. Furthermore, some Parties expressed the view that the effort required to develop guidelines and implement impact assessments, while seeming complicated and time-consuming, is, in fact, negligible when compared to the increase in the efficiency of climate policies that such efforts would yield.

5. The document also outlines some of the challenges Parties identified to the further integration of biodiversity into climate-change related activities. While Parties recognized that building stronger links

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between biodiversity and climate change at the national and international level can enhance implementation of the CBD, a number of challenges were identified, including challenges arising from (i) international processes, (ii) a lack of information/knowledge, and (iii) the need for stakeholder participation.

6. In order to address such challenges, Parties suggested a number of activities including (i) the provision of capacity building for local stakeholders, (ii) the establishment of funds for the engagement of the private sector, (iii) the convening of lecture series and workshops for policy makers and planners at different levels, (iv) building regional or thematic 'missions' into national level plans, and (v) establishing mechanisms to facilitate the involvement of indigenous peoples and local communities.

INTRODUCTION

7. In paragraph 14 of its decision IX/16 B, the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) requested the Executive Secretary to prepare a compilation of the views submitted by Parties on ways to integrate biodiversity considerations into climate change-related activities for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), prior to the tenth meeting of the COP. Accordingly, on 21 August 2008, the Executive Secretary circulated a notification 1/ to Parties requesting their views. Submissions were received from eight Parties (https://www.cbd.int/climate/ahteg/submission/). 2/

8. The present note was prepared by the Executive Secretary as a summary of views that relate to the impacts of climate change on biodiversity and the enhancement of links between climate change mitigation and adaptation and biodiversity. The document also outlines some of the challenges Parties identified to the further integration of biodiversity into climate-change related activities.

9. A draft of this note was posted for comments from 30 November 2009 to 20 December 2009 under notification 2009-156, and comments were incorporated as appropriate.

I. BIODIVERSITY AND IMPACT AND VULNERABILITY ASSESSMENTS

10. Many Parties revealed specific activities within national impact and vulnerability assessments focusing on biodiversity. In Australia, for example, impact studies have been conducted for marine biodiversity, fisheries, and the National Reserve System and World Heritage sites (including the Great Barrier Reef). The Academy of Sciences of the Czech Republic has also completed assessments of the impacts of climate change on biodiversity at all three main levels, while the National Action Plan for Climate Change in India will include biodiversity within its thematic missions on impact assessments. China has also completed its national report on assessment of climate change, which includes a scientific analysis of the impacts of climate change on biodiversity.

11. Assessments of the impacts of climate change on biodiversity are also being increasingly reflected in national biodiversity strategy and actions plans (NBSAP), such as the national biodiversity strategy of the Czech Republic, the United Kingdom biodiversity action plan, and the national biodiversity action plan of India. Such assessments are largely occurring at the national level although some are focused on specific ecosystems which have been identified as being particularly vulnerable to the negative impacts of climate change (such as forests in the Czech Republic and the Great Barrier Reef in Australia).

1/ SCBD/STTM/JW/ac/64561 (2008-106).

2/ Australia, China, Comoros, Cuba, France (on behalf of the European Union and including examples from the Czech Republic, Finland, Germany and the United Kingdom), India, Mauritius and Norway.

12. Parties also called for further action with regard to:

(a) Increasing knowledge on the direct and indirect impacts of climate change on biodiversity, including identifying species or ecosystems for which alternative pathways for conservation may be necessary;

(b) Improving monitoring schemes; and

(c) Linking climate change impacts to biodiversity-based livelihoods.

II. BIODIVERSITY AND CLIMATE CHANGE ADAPTATION

13. Every Party submitting views highlighted ways to integrate biodiversity considerations within climate change adaptation. Views included both (i) activities to ensure that biodiversity is best able to adapt to climate change and (ii) tools through which biodiversity can contribute to broader adaptation activities across a variety of sectors. Throughout the submissions, Parties emphasized the need for adaptive management, good baseline information, and the involvement of all relevant stakeholders. Parties also closely tied biodiversity and climate change adaptation to the continued provision of ecosystem services and to livelihoods.

1. Activities to ensure that biodiversity is best able to adapt to climate change

Enhancing and expanding protected areas networks

14. Protected areas are seen as having a high value for climate change adaptation considering both the continued provision of ecosystem services and the role of protected areas in providing refuges for species. As such, a number of Parties reported on specific activities to enhance or expand protected areas networks as an element of climate change adaptation. Such activities range from the development of adaptation plans for specific protected areas, such as the Great Barrier Reef Climate Change Action Plan in Australia, to a national commitment to expand marine protected areas such as in Mauritius.

15. Overall, actions to enhance and expand protected areas networks were the most commonly mentioned to integrate biodiversity into climate change related activities. They include:

(a) Rehabilitating degraded protected areas;

(b) Increasing the total area under protection;

(c) Expanding the network of marine protected areas;

(d) Identifying and maintaining ecosystem services provided by protected areas;

(e) Documenting existing adaptation measures within protected areas;

(f) Assessing the vulnerability of protected areas sites and networks to the negative impacts of climate change;

(g) Enhancing the integration of protected areas within surrounding landscapes and seascapes;

(h) Including climate gradients in new protected areas;

(i) Reducing fragmentation and establishing corridors between protected areas; and

(j) Establishing adaptation strategies for particularly vulnerable protected areas.

Controlling invasive alien species

16. Invasive alien species are expected to become an even greater threat to biodiversity as a result of climate change. As such, many Parties included the control of invasive alien species as a way to integrate biodiversity within climate change adaptation. Parties identified the particular vulnerability of protected areas, forests and agricultural landscapes to the negative impacts associated with an accelerated threat from invasive alien species and proposed both sector specific and cross-sector responses to address the threat.

17. A number of Parties, while recognizing that climate change may increase threats from invasive alien species, acknowledged that response measures would be very difficult without both institutional capacity building and an expansion of knowledge on where invasive alien species are likely to originate and which ecosystems they are most likely to affect.

Improving monitoring and evaluation

18. Recognizing the uncertainties associated with the impacts of climate change on complex biological systems and the need for adaptive management in the face of climate change, improved monitoring and evaluation, especially of vulnerable ecosystems or species, was identified as an important element within climate change adaptation. For some Parties, such as Comoros, improving monitoring and evaluation requires as a first step, an accurate inventory of flora and fauna in order to establish a baseline. For other Parties, such as the member states of the European Union, monitoring systems for biodiversity are already in place and, as such, only require updating to ensure that climate change considerations are fully integrated.

19. Some of the ecosystems which were highlighted by Parties as requiring urgent action towards improved monitoring and evaluation include: (i) coral reefs, (ii) sea grass beds, (iii) fish and aquatic invertebrates, (iv) mangroves, (v) glaciers, (vi) freshwater ecosystems, and (vii) plant genetic resources.

20. Parties also identified the need to consolidate biodiversity and climate change databases in order to facilitate effective monitoring and evaluation. Such consolidation could occur at the national and international level.

Enhancing the natural adaptive capacity of species and ecosystems

21. Ecosystems and species have some innate capacity to adapt to the negative impacts of climate change although the extent of this adaptive capacity is dependent upon individual species and ecosystem traits as well as the degree of threats faced. As such, some Parties identified the need to enhance the natural adaptive capacity of species and ecosystems through reducing other threats to biodiversity and building resilience into natural systems such as forests and coastal areas.

22. Other interventions to enhance the natural adaptive capacity of biodiversity include integrating natural adaptive capacity as a goal in existing natural resource management plans and integrating climate change information into tools for biodiversity managers.

23. In addition to interventions to be implemented across all ecosystem types, Parties also identified a number of interventions to be prioritized in specific ecosystems. These interventions are highlighted in Table 1 below.

Table 1: Ways to integrate biodiversity in climate change-related activities in a variety of ecosystems

Ecosystem	**Intervention**
Marine and Coastal	Coral farming

Ecosystems	Inventories of marine and coastal livelihoods
	Development of alternative livelihoods for fishers
	Prohibition of sand collection
	Restoration of degraded coastal ecosystems
	Surveys of fish stocks
	Creation of 'fish reserves'
Agricultural Landscapes	Improved water management
	Introduction of native crop and livestock varieties
	Establishment of seed centres
	Adoption of conservation agriculture practices such as the maintenance of cover crops, integrated pest management, or the implementation of crop rotations
	Conservation of key agricultural ecosystem services such as pollination
	Implementation of measures to combat desertification in grazing lands
Forests	Sustainable forest management
	Adopting 'close to nature' forestry measures
	Replanting degraded forests
	Changing the timing of logging to allow for progressive regeneration of stocks
	Avoiding monocultures and plantations with low genetic variance
	Awareness raising on the need for enhanced conservation
	Assessing and, where necessary, revising forest sector strategies in light of the projected impacts of climate change on forest biodiversity
	Review of the spatial planning of forest genetic conservation stands
Inland Waters	Preserving wetland areas
	Restoring degraded wetlands
	Adopting watershed level management plans

2. Tools through which biodiversity can contribute to adaptation activities

Planning and policies

24. Parties reported on two main approaches for linking biodiversity to climate change adaptation in national plans. The first involves the development of targeted planning tools for biodiversity and climate change, such as Australia's National Biodiversity and Climate Change Action Plan. Australia is also developing National Climate Adaptation Research Plans for terrestrial, freshwater and marine biodiversity. The second focuses on updating existing plans and policy tools such as through the review of NBSAPs. At the local level, India identified the importance of including both biodiversity and climate change considerations in community-based disaster management programmes.

25. Parties also identified a number of tools to assist in planning processes such as strategic environmental assessments and environmental impact assessments.

26. With regards to policies, a number of Parties recognized the need to review existing sector policies and associated legislation in order to assess their relevance under changing climate conditions. Sector plans that were viewed as being particularly relevant for review include those related to natural resource management, forestry, fisheries and agriculture.

27. Parties also recognized the importance of linking biodiversity and climate change to development policies. Bolivia, for example, emphasized the importance of building knowledge on economic activities in areas which are vulnerable to climate change while increasing investments in development options such as ecotourism which are compatible with efforts to conserve and sustainably use biodiversity under changing climatic conditions.

III. BIODIVERSITY AND CLIMATE CHANGE MITIGATION

Maximizing synergies

28. A number of views submitted by Parties acknowledged that the conservation and sustainable use of biodiversity can serve as a cost-effective and low-risk mitigation option. Furthermore, some Parties expressed the view that the effort required to develop guidelines and implement impact assessments, while seeming complicated and time-consuming, is, in fact, negligible when compared to the increase in the efficiency of climate policies that such efforts would yield.

29. In their submissions, Parties identified a number of specific actions that could promote the integration of biodiversity within climate change-related activities. Most responding Parties focused on wetlands, agricultural landscapes and forests, and the actions mentioned included:

(a) Identifying measures that contribute to both climate change mitigation and biodiversity conservation and sustainable use (such as the identification of high-biodiversity-value forests for consideration when reducing emissions from deforestation and forest degradation);

(b) Protecting and restoring degraded wetlands and other natural ecosystems;

(c) Promoting the sustainable management of production landscapes, including forests and agricultural areas;

(d) Exploring how funding for mitigation can create incentives for biodiversity conservation and sustainable use (including through establishing a mechanism whereby one single financial transaction can yield climate change, biodiversity and social benefits);

(e) Developing and disseminating new technologies that contribute to climate change mitigation and biodiversity conservation and sustainable use, including new agricultural technologies; and

(f) Strengthening education, training and public awareness on the links between biodiversity and climate change mitigation.

30. A number of actions in support of the above activities have already been implemented. For example, the Government of Norway has declared its willingness to contribute up to 3 billion Norwegian krone per year to reducing emissions from deforestation and forest degradation in developing countries. In disbursing these funds, the Government of Norway recognizes that its goals cannot be achieved over the long term without the conservation and sustainable use of biodiversity in tropical forests as a contribution to poverty reduction, improved forest governance, and to support the rights of indigenous peoples and other forest-dependent communities.

31. Other Parties identified additional forest-related activities to enhance carbon sequestration and biodiversity conservation and sustainable use including: lengthening harvest rotations, promoting the sustainable harvesting of wood products, improving fire management, and restoring riparian forests.

32. Furthermore, the role of intact ecosystems in climate change mitigation is acknowledged by all submitting Parties. Accordingly, approaching synergies by considering ecosystem services as a main entry point is already being explored as one option to achieve the objectives of the biodiversity and climate change conventions.

33. Through its submission, Australia identifies its “Caring for Our Country” programme as an overall approach to maintaining ecosystem services in a changing climate. In doing so, a link is drawn between biodiversity, ecosystem services and climate change. In Germany, the Muritz National Park Peat-bog Initiative aims at the restoration of ecosystem services for biodiversity and carbon benefits. In

the Czech Republic, the impacts of climate change on ecosystem services is already reflected in a number of landscape management documents such as the National Forest Programme II and the Territorial Systems of Ecological Stability of the Landscape. Finally, in China, the National Climate Change Programme, launched in 2007, includes the conservation of natural forests (including mangrove forests) and the improved management of natural reserves.

34. In agricultural landscapes, China and Comoros identified improved agricultural management, agroforestry and "ecoagriculture" as steps that have been taken to enhance carbon sequestration in productive landscapes while maintaining agricultural biodiversity (including soil biodiversity).

Avoiding negative impacts

35. In addition to maximizing synergies between biodiversity and climate change mitigation, Parties identified the need to ensure that the negative impacts of mitigation activities on biodiversity are evaluated and considered. To accomplish this, Parties identified a number of possible actions including:

(a) Identifying the potential negative impacts of climate change mitigation activities;

(b) Ensuring that new mitigation mechanisms adequately address potential negative impacts through the establishment of safeguards;

(c) Developing biodiversity guidelines to be applied to mitigation measures that pose a potential risk to biodiversity including building on voluntary guidelines developed under the Ministerial Conference on the Protection of Forests in Europe and the Pan-European Biological and Landscape Diversity Strategy;

(d) Conducting environmental impact assessments during the development of mitigation measures, including renewable energy;

(e) Integrating the costs of biodiversity loss within economic analysis of mitigation options through, for example, polluter-pays principles; and

(f) Adopting the precautionary principle (including the concept of "do-no-harm").

36. Actions that have already been taken by Parties to avoid possible negative impacts on biodiversity include, in Mauritius, a requirement that was put in place where at least 10 per cent of afforestation and reforestation areas must be replanted with native species. A number of submissions (European Union, Mauritius and Norway) also revealed that environmental impact assessments and biodiversity impact assessments are already being employed to a certain degree, in order to prevent negative impacts and unintended consequences.

37. Many Parties expressed concerns about developing a new mechanism to evaluate the impacts of climate change mitigation on biodiversity. In such cases, Parties considered it more effective to evaluate existing natural resource management frameworks in order to assess whether or not they are suitable for climate change mitigation activities. In cases in which existing frameworks are judged to be adequate, there is no need for additional steps to be taken although it is still important to monitor the situation in case additional legislation is required.

IV. CHALLENGES TO ENHANCING SYNERGIES

38. While Parties recognized that building stronger links between biodiversity and climate change at the national and international level can enhance implementation of the CBD, a number of challenges were identified.

Challenges arising from international processes

39. The level of technical details between the work of the CBD and that of the United Nations Framework Convention on Climate Change (UNFCCC) is divergent. Furthermore, the terminology used under the two Conventions varies, making information sharing and harmonized reporting more difficult.

40. At the fifteenth meeting of its COP in December 2009, the Parties to the UNFCCC took note of the Copenhagen Accord, a step towards negotiating a post-2012 regime for mitigating and adapting to climate change. Some progress was made with regard to Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries (REDD-plus), with details regarding methodological and financing mechanisms to promote synergies to be considered at the next UNFCCC COP to be held 29 November to 10 December in 2010. The importance of co-benefits of REDD-plus for biodiversity and for indigenous and local communities were recognized by UNFCCC COP 15, nonetheless, many Parties have expressed views that there is insufficient time to consider many of the issues that must be resolved in order to improve linkages between biodiversity and climate change, including on REDD-plus, but also pertaining to peatlands, other wetlands, and other ecosystems.

41. There was also a call by the Conference of the Parties to the CBD for legal regulations and financial incentives to be carefully designed in order to avoid unintended consequences and negative side-effects for biodiversity and associated ecosystems (decisions IX/5, IX/6, IX/16 and IX/18). However, ensuring this is difficult given the short time available for the consideration of regulatory and financial options under the UNFCCC and the lack of effective synergies between climate change and biodiversity policy processes. The need for safeguards for biodiversity and for the rights of indigenous and local communities in climate change adaptation and mitigation measures was recognized by many Parties and observers, however, no specific provisions are included in the latest version of relevant UNFCCC draft texts (as of 1 January 2010).

42. Furthermore, as the CBD has no specific compliance mechanisms, there may be a tendency to rely on the UNFCCC and Kyoto Protocol processes and guidelines during national implementation. This may result in viewing biodiversity issues as additional and voluntary rather than integrated elements.

43. In order to address such challenges, Parties suggested:

(a) Enhanced collaboration between the scientific bodies of the Rio Conventions including though enhanced cooperation among the bureaus of the respective bodies;

(b) Improved awareness raising among national and international policy makers on the links between biodiversity and climate change;

(c) The establishment of links between NBSAPs (CBD), National Adaptation Programmes of Action (UNFCCC) and National Action Programmes (UNCCD); and

(d) Further enhancing links with the United Nations Forum on Forests (UNFF) and the other members of the Collaborative Partnership on Forests (CPF).

Challenges arising from a lack of information/knowledge

44. Although ecosystems are acknowledged as important carbon sinks, the evaluation of the amount of carbon stored in some systems, such as wetlands and soil, is currently very difficult. In addition, the lack of general knowledge concerning the value of ecosystem services may lead to an undervaluation of some ecosystems (including their carbon sequestration activities) when compared to ecosystems in which such knowledge is readily available.

45. Other specific information or knowledge needs identified by Parties include:

(a) Information on the costs of biodiversity loss within the evaluation of climate change-related actions;

(b) Downscaled climate models to assess local and regional impacts;

(c) Improved bioclimatic models; and

(d) Information on the links between biodiversity-based livelihoods and climate change.

Challenges arising from the need for stakeholder participation

46. While Parties recognized the need to involve local stakeholders in the design and implementation of activities, some Parties revealed that such a process is long, costly and complex. In particular, the full and effective participation of all relevant stakeholders requires (i) the identification of relevant stakeholders, (ii) an understanding of their interests (economic and non-economic), (iii) awareness raising so stakeholders can fully understand projected impacts, (iv) local and, where relevant, regional consultations, and (v) the establishment of a mechanism for reporting and feedback.

47. Many land-based mitigation activities, which could otherwise serve as a natural links for biodiversity and climate change, have a long time horizon (especially when considering afforestation and reforestation). Some Parties expressed difficulties in mobilizing the private sector to invest in such projects despite existing incentive frameworks.

48. At the national level, Parties identified difficulties with regards to matching national plans and policies to local and regional activities. This is especially true in the case of adaptation which is highly dependent on local conditions and highly reliant upon local stakeholders for implementation.

49. In order to address such challenges, Parties suggested:

(a) The provision of capacity building for local stakeholders (including the establishment of pilot projects demonstrating best practices);

(b) The establishment of funds for the engagement of the private sector;

(c) The convening of lecture series and workshops for policy makers and planners at different levels;

(d) Building regional or thematic ‘missions’ into national level plans; and

(e) Establishing mechanisms to facilitate the involvement of indigenous peoples and local communities.
