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ASIA-PACIFIC FORESTRY COMMISSION

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FORESTS AND BIODIVERSITY: CONSERVATION AND SUSTAINABLE USE OF FOREST TREASURES

SECRETARIAT NOTE

INTRODUCTION

1. The year 2010 is being celebrated worldwide as the International Year of Biodiversity. At the same time, 2010 marks the finish line for the commitment of the 193 Parties to the Convention on Biological Diversity (CBD) to “achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth”. This was a key target of the Strategic Plan of the CBD adopted at the sixth meeting of the Conference of the Parties (COP) in 2002. From 18-29 October 2010, in Nagoya/Japan, at the tenth meeting of the COP, the CBD will assess progress towards the 2010 biodiversity target and adopt a new Strategic Plan.

2. Forests harbor an estimated two thirds of all terrestrial species and are thus a key ecosystem for the 2010 target and for national efforts to implement the CBD. Two key publications released in 2010 – the Global Forest Resources Assessment 2010 and the third Global Biodiversity Outlook – provide analysis of the global status and trends in forest biodiversity. This note is based on the key findings of these publications, and on the Fourth National Reports of Parties to the CBD in Asia and the Pacific.

FOREST BIODIVERSITY: GLOBAL STATUS AND TRENDS

Global Biodiversity Outlook

3. The third Global Biodiversity Outlook (GBO 3)¹, launched on 10 May 2010 in Nairobi, Kenya, concludes that, despite significant efforts made by Parties and other stakeholders to reduce biodiversity loss, the 2010 biodiversity target has not been reached; principally because the scale of

¹ This background document has been written by the CBD Secretariat. All CBD publications listed in this paper are available for download on the website of the CBD: www.cbd.int

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Most FAO meeting documents are available on Internet at www.fao.org

activities has not been sufficient to meet the challenges and, in particular, because of a failure to address underlying causes of biodiversity loss. In particular, GBO 3 identifies a series of potential tipping points of dangerous biodiversity loss. One such tipping point in the Earth's "life support system" is the potential collapse of large tropical rainforest ecosystems, and their potential shift into new and diminished ecological states, with negative consequences for human well-being.

Global Forest Resources Assessment

4. The Global Forest Resources Assessment 2010² notes that while deforestation trends have slowed somewhat in the past decade, deforestation is still alarmingly high, with 40,000 square kilometers (an area the size of Bhutan) of biodiverse and carbon rich primary forests being lost every year. The most important direct drivers of forest biodiversity loss continue to be agricultural expansion, forest fragmentation, spread of invasive species, pollution, and climate change, while the most important underlying drivers are population growth and consumption patterns, including the substitution of fossil fuels with biofuels (CBD, 2008)³.

The bushmeat crisis

5. The IUCN *Red List of Threatened Species*TM records that more than one-in-four species of mammals are now threatened with extinction, at varying levels. A growing concern in tropical forests is the "empty forest syndrome" due to unsustainable hunting of bushmeat, i.e. mammals and other large vertebrates hunted for food and non-food purposes. Up to 75 percent of tropical tree species depend on animals for seed dispersal. Animal absence will greatly affect the reproduction of many tree species. The Bushmeat Liaison Group of the CBD (jointly convened with FAO, Center for International Forestry Research and International Council for Game and Wildlife Conservation) concluded that forestry operations are often closely linked to commercial bushmeat hunting through logging roads and crews, and has elaborated a set of recommendations⁴ to address this issue.

Progress on biodiversity conservation

6. On a more positive note, protected areas now cover 12.2 percent of all land, a marked increase since 2004, with significant increases in protected tropical forests. Twenty-seven countries reported the establishment of a total of 6,038 new terrestrial protected areas since 2004. At the global scale, only the tropical and sub-tropical coniferous forests biomes remain under-represented in relation to the CBD goal of at least 10 percent of each forest type effectively conserved by 2010. In addition, efforts aimed at forest landscape restoration have been initiated in many countries, with mostly positive effects on biodiversity. However, while effective systems of protected areas are a key tool for the conservation of biodiversity, the third Global Biodiversity Outlook makes it clear that protected areas alone are not sufficient to meet the three objectives of the CBD: a) the conservation of biodiversity; b) the sustainable use of its components; and c) the fair and equitable sharing of benefits arising from the use of genetic resources.

Regional context

7. The Asia-Pacific region is rich in biological diversity, and characterized by an enormous diversity of ecological and socio-economic conditions. Six of the seventeen "mega diverse" countries of the world are located in the region. It is estimated that while Southeast Asia contains only about 3

² Cf. FRA 2010 website: <http://www.fao.org/forestry/fra/en/>

³ Cf. In-depth review of the CBD programme of work on forest biodiversity, 2008 <http://www.cbd.int/doc/meetings/sbstta/sbstta-13/official/sbstta-13-03-en.doc>

⁴ Cf. In-depth review of Sustainable Use activities of the CBD, 2010 <http://www.cbd.int/doc/meetings/sbstta/sbstta-14/official/sbstta-14-07-en.doc>

percent of the landmass of the planet, it is home to almost 20 percent of all species. The region hosts the country with the fastest rate of loss of primary forests and, at the same time, the country with the highest rate and overall area of forest expansion; as well as the two countries with the highest levels of imports of tropical timber products. All countries in the region are Parties to the CBD, but national circumstances regarding implementation of commitments under the Convention, and other commitments related to biodiversity, vary widely.

KEY CHALLENGES

8. In their third and fourth national reports to the CBD, countries reported on a wide range of obstacles in implementing the programme of work on forest biodiversity. The programme of work is the main forest policy instrument of the Convention, and contains 130 actions at national and regional levels related to all biodiversity aspects of sustainable forest management (cf. decision VI/22, www.cbd.int/forest). The most common obstacle for developing countries is lack of capacity (financial and human). Reports also suggest that weak governance and, in particular, a lack of law enforcement, are key obstacles to the implementation of many goals and objectives of the programme of work. Corruption, illegal logging, and unresolved land tenure issues are amongst the most common obstacles. Recent scientific analysis also points to market failures contributing to deforestation and forest degradation. The absence of proper valuation of the full range of forest ecosystem services means that the high present and future costs of deforestation and forest conversion to society are often not reflected in decision making processes (World Bank, 2007; TEEB, 2009)⁵.

KEY OPPORTUNITIES

The key role of biodiversity for ecosystem functioning and human well-being

9. A recent synthesis report of over 400 peer-reviewed articles concludes that biodiversity underpins forest resilience at multiple scales (Thompson et al., 2009)⁶. This has far-reaching consequences for forest management, because it means that biodiversity considerations should be integrated into all forest management decisions to maintain forest health, productivity, and long-term resilience. Maintaining biodiversity (at genetic, species, and ecosystem levels) is a key “insurance policy” against loss of forest values and functionality, especially in light of observed and expected climate change impacts. Genetic diversity particularly serves as a reservoir for potential climate change adaptive capacity; an important argument for integrating genetic diversity considerations into forest management. FAO-led efforts to produce the first State of the World’s Forest Genetic Resources report by 2013 will be instrumental in this context.

Reducing emissions from deforestation in developing countries (REDD+)

10. Biodiversity, ecosystem services, and effective governance are not just co-benefits of REDD+, they are also enabling conditions. Biodiversity underpins resilience and therefore long-term carbon storage. Primary forests, in particular, offer important opportunities to protect carbon stocks, prevent future greenhouse gas emissions, and conserve biodiversity. Most biomass carbon in primary forests is stored in older trees or in the soil. Land-use activities that involve clearing or logging reduce the standing stock of biomass carbon, cause collateral losses from soil, litter and deadwood, and have

⁵ At Loggerheads? World Bank, 2007 http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2006/10/19/000112742_20061019150049/Rendered/PDF/367890Loggerheads0Report.pdf ;

TEEB The Economics of Ecosystems and Biodiversity for national and international policy makers policy makers, 2009 <http://www.teebweb.org/LinkClick.aspx?fileticket=I4Y2nqqIiCg%3d&tabid=924&language=en-US>

⁶ Forest Resilience, Biodiversity, and Climate Change, CBD Technical Series Nr. 43, cf. <http://www.cbd.int/doc/publications/cbd-ts-43-en.pdf>

also been shown to reduce biodiversity and ecosystem resilience. This creates a “carbon debt” which can take decades or centuries to recover, depending on initial conditions and the intensity of land use. Conserving forests threatened by deforestation and forest degradation is therefore an important climate change mitigation opportunity for some countries. Avoiding potential future emissions from existing carbon stocks in forests, especially primary forests, can be achieved through a range of means that include expanding protected area networks, improved management practices, and development of policy instruments and tools that provide greater opportunities for revenue capture through forest conservation.

11. Other key opportunities for enhancement of forest biodiversity through REDD+ relate to improvements in forest management; strengthened implementation of SFM; and enhancement of forest carbon stocks. For example, forest landscape restoration, as promoted by the Global Partnership on Forest Landscape Restoration⁷, contributes to international commitments under the Rio Conventions, and the United Nations Forum on Forests (UNFF).

The economics of ecosystems and biodiversity (TEEB)⁸

12. A large part of global deforestation and forest degradation can be traced back to market failures (TEEB, 2009). While it is increasingly recognized that intact forests produce valuable and often essential ecosystem services, these services are in many cases not marketable, and fail to provide an alternative to forest conversion, or overexploitation. The global study on “*The Economics of Ecosystems and Biodiversity*” (TEEB) has compiled economic data and information needed to address these market failures; for example, through new payments for ecosystem services (PES) schemes, which could be based on economic valuations of forest ecosystem services.

New priorities and Strategic Plan of the CBD

13. The tenth meeting of the Conference of the Parties (COP) to the CBD in Nagoya, Japan, 18-29 October 2010, is expected to adopt a new Strategic Plan for the period 2011-2020, with several forest-related targets that aim to further bolster linkages between the CBD, other Rio Conventions, the Millennium Development Goals, FAO and UNFF. Among the objectives listed in the draft new Strategic Plan, to be achieved by 2020, are to:

- halve the rate of deforestation and forest degradation;
- manage all forests according to sustainability criteria;
- protect at least 15 percent of forests through effectively managed protected areas; and
- restore 15 percent of the world’s degraded forest landscapes.

14. Under the Global Environment Facility, each eligible country will have an earmarked allocation to revise and update its National Biodiversity Strategy and Action Plan (NBSAP) in accordance with the new Strategic Plan. The revision of NBSAPs will open opportunities to further integrate biodiversity efforts into national forest policies and planning (e.g. through National Forest Programmes) and to establish synergies with other forest-related strategies and action plans, such as National Adaptation Programmes of Action (NAPAs) or Nationally Appropriate Mitigation Actions (NAMAs) under the UNFCCC.

⁷ Cf. www.ideastransformlandscapes.org

⁸ Several reports of the TEEB study have already been released. The final report of TEEB will be launched at the tenth meeting of the Conference of the Parties to the CBD, in Nagoya, Japan, 18-19 October 2010. All reports are available at <http://www.teebweb.org/>

Progress on monitoring biodiversity

15. While most countries – and the global community as a whole – have not achieved the 2010 target to significantly reduce the loss of biodiversity, substantial progress has been made in recent years in the area of biodiversity monitoring. The Global Biodiversity Indicator Partnership (BIP) has set up a system of data collection and comparison that can track several indicators across specific key focal areas agreed under the CBD (for example, status and trends in components of biodiversity; ecosystem integrity; status of traditional knowledge, etc). The technology to monitor some of these indicators (e.g. through remote sensing and DNA bar-coding) is becoming more available and affordable⁹.

Improved international and regional collaboration

16. The Collaborative Partnership on Forests (CPF) is addressing challenges related to sustainable forest management with new vigor¹⁰, spurred in part by the climate change agenda. Two CPF initiatives are contributing to the objectives of the CBD: the Global Forest Expert Panels (GEFP), which provide scientific synthesis of key forest issues; and the FAO-led CPF initiative to improve the monitoring and reporting on forest degradation. Furthermore, the CBD Secretariat recently signed memoranda of understanding with UNFF and with the ITTO Secretariats, with the aim of further facilitating the achievement of national biodiversity commitments. The collaboration with ITTO foresees the development of a support programme for ITTO producer countries for the implementation of the CBD. Similarly, opportunities for collaboration at regional levels are increasing. For instance, limiting the spread of invasive alien species (IAS) requires effective regional collaboration. The Asia-Pacific Forest Invasive Species Network (APFISN)¹¹ is demonstrating how regional collaboration supports national implementation efforts.

DISCUSSION ITEMS FOR THE COMMISSION

17. APFC members may wish to consider national actions and providing guidance to FAO and other international organizations on the following points:

- Potential synergies among national efforts under the Rio Conventions (UNFCCC, CBD, and UNCCD), the UNFF, and related capacity building needs;
- Regional collaboration on forest invasive species and other priority areas for the conservation and sustainable use of forest biodiversity (e.g. through expanded cooperation through the Asia-Pacific Forest Invasion Species Network);
- Improving biodiversity monitoring, including in the context of REDD+ biodiversity benefits, and contributions to the *State of the World's Forest Genetic Resources report* (SOW-FGR);
- Enhancing coordinated international and regional activities to support country efforts in forests and climate change; and
- Further strengthening regional collaboration on biodiversity issues, e.g. through the work of regional expert groups such as the Asia-Pacific Forest Invasive Species Network (APFISN).

⁹ For more information refer: www.twentyten.net

¹⁰ See e.g. the CPF Strategic Framework on Forests and Climate Change, <http://www.fao.org/forestry/cpf/climatechange/en/>

¹¹ Cf. <http://apfism.net/>