

## COMMUNIQUÉ

### Water security depends on forests and wetlands

*Montreal, 2 February 2011* – In our rapidly urbanizing world water security is a key issue. Today, as we celebrate World Wetlands Day and inaugurate the International Year of Forests, it is important to recognize the critical links between water, forests, wetlands and people. More than one in six people worldwide still do not have access to safe drinking water. We are witnessing escalating problems with water scarcity and increasing problems with extremes in water availability – such as droughts and floods.

Estimates suggest that by 2025, 1.8 billion people will be living in regions with absolute water scarcity, with the possibility of two-thirds of the world's population experiencing water-stress conditions. Recent assessments suggest that about 80 per cent of the global population already live in areas where water is insecure.

Water is tightly linked to forests and wetland ecosystems through the hydrological cycle. Forests and wetlands regulate water availability and serve as natural water purification systems. Forests help route water in a watershed by stabilizing soils, which allows water to enter them, and also regulate soil erosion. This maintains catchments, preventing desertification and salinization. Forests also emit water vapour into the atmosphere, thereby regulating local climate and rainfall. In turn, forests depend on groundwater and soil moisture for their survival and rely on wetlands to replenish this.

There are also crucial economic benefits from the linkages between water, forests and wetlands. For example, forested protected areas provide a significant portion of the drinking-water supply to at least one third of the world's largest cities. Forested wetlands, like mangroves, protect human communities from natural catastrophes such as tsunamis, and river floodplains play a key role in protecting downstream communities from floods.

*The Economics of Ecosystems and Biodiversity (TEEB)* study, for example, estimates that water-related services of tropical forests account for more than US\$ 7,000 per hectare each year, i.e., up to 45 per cent of their total value. This exceeds the value of timber, tourism and carbon storage combined. The TEEB study concludes that, "There is a compelling cost-benefit case for public investment in ecological infrastructure (especially restoring and conserving forests, mangroves, river basins, wetlands, etc.)..."

Yet, despite their importance to human well-being, forests and wetlands are amongst the most threatened ecosystem types. Deforestation is still alarmingly high and poses a major threat to water catchments and the quantity and quality of available fresh water. Concurrently, it is estimated that half of the world's wetlands have been lost since 1900, resulting in adverse effects for many natural cycles and an unprecedented loss of biodiversity. It is now becoming widely recognized that wetland loss is a major contributing factor in increasing flood risk, particularly for cities. There are, however, some positive trends. We are seeing better use of these ecosystems through the conservation of their valuable functions in order to address water security needs.

The management of forests and wetlands are inextricably linked. It is therefore imperative that policy-makers consider ecosystems in their entirety and manage them more wisely to achieve sustainable and cost-effective solutions to our water related needs.

Achieving water security is probably our most important environmental challenge. For this reason, the Strategic Plan for Biodiversity 2011-2020, adopted at the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity in Nagoya, recognizes the cross-cutting nature of water in underpinning the services that we need from ecosystems.

### **Learn More**

- CBD Technical Series No. 47, *Water, Wetlands and Forests* > [www.cbd.int/ts](http://www.cbd.int/ts)
- CBD COP decisions related to forests > [www.cbd.int/forest/decisions.shtml](http://www.cbd.int/forest/decisions.shtml)
- CBD COP decisions related to wetlands > [www.cbd.int/waters/decisions.shtml](http://www.cbd.int/waters/decisions.shtml)
- Related websites (forests) > [www.cbd.int/forest/websites](http://www.cbd.int/forest/websites)
- Related websites (wetlands) > [www.cbd.int/waters/websites](http://www.cbd.int/waters/websites)

### **The Convention on Biological Diversity (CBD)**

Opened for signature at the Earth Summit in Rio de Janeiro in 1992, and entering into force in December 1993, the Convention on Biological Diversity is an international treaty for the conservation of biodiversity, the sustainable use of the components of biodiversity and the equitable sharing of the benefits derived from the use of genetic resources. With 193 Parties, the Convention has near universal participation among countries. The Convention seeks to address all threats to biodiversity and ecosystem services, including threats from climate change, through scientific assessments, the development of tools, incentives and processes, the transfer of technologies and good practices and the full and active involvement of relevant stakeholders including indigenous and local communities, youth, NGOs, women and the business community.

### **The Collaborative Partnership on Forests**

The Collaborative Partnership on Forests (CPF) is a voluntary arrangement comprising 14 international organizations and secretariats with substantial programmes on forests (the Centre for International Forestry Research (CIFOR), the Food and Agriculture Organization of the United Nations (FAO), the International Tropical Timber Organization (ITTO), the International Union of Forest Research Organizations (IUFRO), the Convention on Biological Diversity, the Global Environment Facility, the United Nations Convention to Combat Desertification, the United Nations Forum on Forests (UNFF), the United Nations Framework Convention on Climate Change, the United Nations Environment Programme (UNEP), the World Agroforestry Centre (ICRAF), the World Bank, and IUCN, the International Union for Conservation of Nature). The mission of the Collaborative Partnership is to promote the management, conservation and sustainable development of all types of forest and strengthen long term political commitment to this end. CPF members share their experiences and build on them to produce new benefits for their respective constituencies. Joint initiatives and other collaboration activities are supported by voluntary contributions from participating members.

For more information visit [www.cbd.int](http://www.cbd.int)

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## Forests and Wetlands – Key facts

### *Forest and wetland ecosystems are inter-dependent*

- Forests route and store water, regulate soil erosion and pollution, and help prevent desertification and salinization
- Many forests depend on groundwater for survival and rely on wetlands to replenish it
- Many wetlands are forested, and many forests are wetlands.

### *Forests and wetlands capture and store water, prevent soil erosion, and serve as natural water purification systems*

- Less than 0.03% of the world's water is freshwater and in a liquid form available for use
- More than one in six people worldwide still do not have access to safe drinking water
- By 2025, 1.8 billion people will be living in regions with absolute water scarcity, with the possibility of two-thirds of the world's population experiencing water-stress conditions
- Approximately 80 per cent of the world's population live in areas where water resources are insecure
- Over three quarters of the world's accessible fresh water comes from forested watersheds and wetlands
- More than one third of the world's largest cities obtain some, if not most, of their drinking water supplies from forested protected areas and wetlands.

### *Forests and wetlands support biodiversity and provide valuable ecosystem services*

- Some 80 per cent of people in developing countries rely on traditional medicines—a majority of which originate from plants found in forests and wetlands
- Wetlands, such as mangroves and river floodplains, protect human communities from natural catastrophes such as tsunamis and floods
- Natural disasters, most of which are due to water related impacts, cause a sustained reduction of 14 per cent in GDP of least developed countries
- OECD countries and Brazil, the Russian Federation, India and China spend US\$ 750 billion yearly in water infrastructure
- Natural forests and wetlands are among the best stores of carbon—which requires a continued availability of water—and are important in combating climate change
- Water-related services of tropical forests collectively account for a value of more than US\$7,000 per hectare per year, up to 45 per cent of the total value of forests, and exceeding the combined value of climate regulation, food, raw materials, and recreation and tourism.

### *Forests and wetlands are severely threatened*

- Over the last 8,000 years about 45 per cent of the Earth's original forests have disappeared, most of which were cleared during the past century
- Half of the world's wetlands have been lost since 1900
- Approximately 13 million hectares of the world's forests, an area the size of Greece, are lost to deforestation each year
- Clearing, transformation, drainage and water use for agricultural development is the main cause of wetland loss worldwide.

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