



## UNITED NATIONS ENVIRONMENT PROGRAMME

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### **Boosting Biodiversity Can Boost Global Economy**

#### **2010 is Litmus Test of International Community's Resolve to Conserve and Enhance Planet's Natural Assets**

#### **UN's International Year of Biodiversity Kicks Off in Berlin**

**Berlin/Nairobi, 11 January 2010**—A new and more intelligent pact between humanity and the Earth's economically-important life-support systems is urgently needed in 2010, the head of the UN Environment Programme (UNEP) said today.

Speaking at the launch of the UN's International Year of Biodiversity in Berlin today, UN Under-Secretary General and UNEP's Executive Director Achim Steiner said that an unprecedented scientific, economic, political and public awareness effort was needed to reverse--and to stop-- the loss of the planet's natural assets.

These losses include its biodiversity such as animal and plant species and the planet's ecosystems and their multi-trillion dollar services arising from forests and freshwater to soils and coral reefs.

"The words biodiversity and ecosystems might seem abstract and remote to many people. But there is nothing abstract about their role in economies and in the lives of billions of people," said Mr. Steiner at the meeting hosted by German Chancellor Angela Merkel.

"Take coral reefs for example. The range of benefits generated by these ecosystems and the biodiversity underpinning them are all too often invisible and mainly undervalued by those in charge of national economies and international development support," he added.

The latest estimates by The Economics of Ecosystems and Biodiversity (TEEB) study, which UNEP hosts, indicates that coral reefs generate annually up to US\$189,000 per hectare in terms of coastal defenses and other areas of 'natural hazard management'.

"In terms of diving and other tourism revenues, the annual services generated equate to perhaps US\$1 million; genetic materials and bio-prospecting, up to US\$57,000 per hectare annually and fisheries, up to US\$3,800 per hectare per year," explained Mr. Steiner.

Meanwhile, it is estimated, for example, that one fifth of coral reefs are already seriously degraded or under imminent risk of collapse as a result of unsustainable human activities such as coastal developments, over-fishing, destructive fishing practices and pollution.

Climate change and ocean acidification, linked with the build-up of carbon dioxide, could eventually see 50 per cent and perhaps up to 100 per cent loss of coral reefs worldwide.

“If you factor the true value of coral reefs into economic planning, it is likely that far more rational and sustainable choices would be made in terms of development, emissions and pollution control and resource management. It is a similar story in respect to all of the planet’s nature-based assets from forests and freshwaters to mountains and soils,” said Mr. Steiner.

He added that 2010 was meant to be the year when the world reversed the rate of loss of biodiversity, but this had not happened.

“I would urge heads of state here in Berlin and beyond to renew their commitment and set their sights broad and high. The urgency of the situation demands that as a global community we not only reverse the rate of loss, but that we stop the loss altogether and begin restoring the ecological infrastructure that has been damaged and degraded over the previous century or so,” stressed Mr. Steiner.

He added that the International Year of Biodiversity would prove a success only if several litmus tests are met.

### **Science**

There is an urgent need to bridge the gap between science and policy-makers in governments around the world.

In February, environment ministers attending UNEP’s Governing Council/Global Ministerial Environment Forum will decide whether or not to establish an Intergovernmental Panel or Platform on Biodiversity and Ecosystem Services (IPBES).

“There is an urgent need to take forward the science, in part to sharpen our understanding of the natural world and unravel its complexities. For example, we still do not know how many species are needed within a given ecosystem to maintain its health and its economically-important services,” said Mr. Steiner.

“There is also an urgent need to ensure that the wealth of science we already have is used by governments to maximum effect and genuine and sustained action on the ground,” he added.

The proposed IPBES is aimed at addressing these issues. Mr. Steiner pointed out that governments should consider supporting the proposed new panel or give guidance on an alternative body or mechanism. He added the status quo was not an option if biodiversity loss is to be truly addressed.

### **Public Awareness**

Mobilizing public support across countries, cities, companies and communities would be among the keys to a successful year.

“De-mystifying terms such as biodiversity and ecosystems and communicating complex concepts and sometimes obscure scientific terms, will also be vital to get people on board,” said UNEP’s Executive Director.

“Linking livelihoods, the combating of poverty and the relationship between biodiversity and natural systems with the health of economies needs to set the tone. Equally the link between not only the threat from climate change but the role of living organisms and systems in buffering humanity against the worst impacts of global warming are messages that need to be heard loud and clear,” he added.

- For example, an estimated 5 gigatonnes or 15 percent of worldwide carbon dioxide emissions - the principal greenhouse gas - are absorbed or ‘sequestered’ by forests every year, making them the “mitigation engine” of the natural world.
- Forests also capture and store rainwater, releasing it into river systems while also recycling a great deal of the nutrients upon which agriculture depends.
- Marine ecosystems, including mangroves, salt marshes and sea-grasses are not only coastal defenses and fish nurseries. It is estimated that they are absorbing and locking away greenhouse gases equal to half the world’s transport emissions.

### **Economics**

Bringing the economics of biodiversity and healthy ecosystems into mainstream economics and national accounts would be a major achievement.

TEEB, which builds on some 20 years of work, will publish its final report in advance of the 10<sup>th</sup> meeting of the Conference of the Parties to the Convention on Biological Diversity in Nagoya, Japan, in October this year.

However, its work so far has shed new light on how much the global economy is losing as a result of its failure to sustainably manage its natural capital.

- The TEEB Interim Report estimated that annual losses as a result of deforestation and forest degradation alone may equate to losses of US\$2 trillion to over US\$4.5 trillion alone.

The study is also underlining the huge economic returns from investing in nature.

- It is estimated that for an annual investment of US\$45 billion into protected areas alone, the delivery of ecosystem services worth some US\$5 trillion a year could be secured.

The study underlines that many countries are already factoring natural capital into some areas of economic and social life with important returns, but that this needs rapid and sustained scaling-up.

In Venezuela, investment in the national protected area system is preventing sedimentation that otherwise could reduce farm earnings by around US\$3.5 million a year

- Planting and protecting nearly 12,000 hectares of mangroves in Vietnam costs just over US\$1 million but saved annual expenditures on dyke maintenance of well over US\$7 million

- One in 40 jobs in Europe are now linked with the environment and ecosystem services ranging from clean tech 'eco-industries' to organic agriculture, sustainable forestry and eco-tourism.

"Among the positive outcomes of the recent UN climate convention meeting in Copenhagen was an agreement that Reduced Emissions from Deforestation and Forest Degradation (REDD) can join the existing options for combating climate change. In other words, paying developing nations to conserve rather forests systems so that the carbon remains locked in nature rather than emitted to the atmosphere," said Mr. Steiner.

Other possibilities, ones that meet the climate but also the biodiversity challenge, could follow and should be taken forward in 2010.

These include carbon payments for farmers and landowners who manage agriculture and land in ways that reduce greenhouse gas emissions and enhance living systems and the role of marine ecosystems in climate including adaptation but also their importance in terms of biodiversity.

### **Alien Invasive Species**

Part of the challenge that echoes the economic question includes addressing alien invasive species.

These are species that, as a result of international trade including shipping or deliberate introductions, can flourish unchecked in their new homes sometimes thousands of kilometers from where they are naturally found.

- By some estimates alien invasive species may be costing the global economy US\$1.4 trillion or more while representing a further challenge to the poverty-related UN Millennium Development Goals.
- In sub-Saharan Africa, the invasive witchweed is responsible for annual maize losses amounting to US\$7 billion: overall losses to aliens may amount to over US\$12 billion in respect to Africa's eight principle crops.

"Improved international cooperation through the UNEP-linked Convention on Biological Diversity is needed and stepped up support for the Global Invasive Species Programme," said UNEP's Executive Director.

"It is also important to boost the capacity of the responsible national customs and quarantine agencies, especially in developing countries and to accelerate controls on the movement of aliens via the UN's International Maritime Organization," he added.

### **Access and Benefit Sharing**

Successfully negotiating an international regime on access and benefit sharing of genetic resources at the CBD meeting in Japan would also be a landmark for 2010.

Currently, and in the absence of such a regime, many developing countries harbouring the richest source of genetic material are declining companies from developing countries and scientists access to these resources.

An international regime could foster cooperation and unlock the genetic resources available in the developing world for the development of new pharmaceuticals, new crop strains and materials for all nations.

In turn it could trigger financial flows from North to South and improve the economics of conserving biodiversity and ecosystems.

“Constructive negotiations are underway since the last meeting of the CBD in Bonn in 2008 and there is optimism that an international regime could be concluded to the benefit of developed and developing economies, to the benefit of biodiversity and ecosystems,” said Mr. Steiner.

### **Improved International Environment Governance**

The international response to biodiversity loss and sustainable management of nature-based resources has been the establishment of several key bio-related treaties.

These include the CBD and its Cartagena Protocol on living modified organisms; the Convention on the International Trade in Endangered Species; the Convention on Migratory Species; the Ramsar Convention covering wetlands and the Africa Eurasia Waterbird Agreement.

Greater cooperation between the relevant treaties and agreements should be fostered in 2010 in order to accelerate the international response.

### **Notes to Editors**

The International Year of Biodiversity under the theme Biodiversity is Life can be accessed at <http://www.cbd.int/2010/welcome/>

The 10<sup>th</sup> meeting of the conference of the parties to the CBD <http://www.cbd.int/cop10/>

The Economics of Ecosystems and Biodiversity is at [www.teebweb.org](http://www.teebweb.org)

UNEP's work on ecosystem management is at <http://www.unep.org/ecosystemmanagement/>

UN REDD is at [www.un-redd.org](http://www.un-redd.org)

The Carbon Benefits Project

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=585&ArticleID=6159&l=en&t=long>

The Natural Fix?-The Role of Ecosystems in Climate Mitigation  
[http://www.unep.org/pdf/BioseqRRA\\_scr.pdf](http://www.unep.org/pdf/BioseqRRA_scr.pdf)

Blue Carbon and marine ecosystems

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=599&ArticleID=6342&l=en&t=long>

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