The Rio Conventions’ Ecosystems and Climate Change Pavilion is a collaborative outreach activity involving the Rio Convention secretariats, with the Global Environment Facility and other important partners.

The economics of ecosystems and biodiversity
Monday, 25 October, Nagoya - Day 7

Valuing nature a necessity for the poor — Putting a value on nature is difficult, says Pavan Sukhdev from TEEB - The Economics of Ecosystems and Biodiversity - but one thing is clear: biodiversity is not a luxury for the rich but a necessity for the poor. As a result, he says, reasonable land-planning must recognize the value of ecosystems and set aside space for the poor, especially when the vital needs of communities are at stake. TEEB can give guidance, he says, but the solutions need to be implemented by governments and people.

Changing the political debate — TEEB is a great opportunity for Brazil to adopt a combined response for desertification, biodiversity, climate change, and forests, says Izabella Teixeira, the Minister of the Environment of Brazil. TEEB is particularly important in finding out the value of protected areas in the Amazon region. A tangible, pragmatic approach, she says, is necessary to address sustainability, and TEEB provides a valuable basis for a new style of political debate.

Environmental footprint too large — It is necessary to admit, on a bigger scale, the impact of human consumption patterns on biodiversity, climate change and other parts of the environmental system, says Andreas Carlgren, Minister of the Environment of Sweden. He says Europe has to diminish its environmental footprint, and at the national level, it needs to not only integrate biodiversity into the price of goods, but also create partnerships between developed and developing countries to deliver capacity building.

Value is more than GDP — It isn’t easy figuring out just how valuable natural services are. Present economic indicators like GDP are distorted and do not reflect the changes in the level of human well-being, which depends on ecosystem services says Dr. Pushpam Kumar, from TEEB. Drivers like trade and investment, which are impacting the ecosystems, have far-reaching implications for society. And beyond that, present accounting for economic growth does not incorporate ecosystem services, which implies that destroying biodiversity and ecosystem services may not lead to negative figures in economic accounting.

Can’t make it without biodiversity — Norway has oil, says Heidi Sorensen from Norway, “but if we lost the oil, we would survive. If we lost our biodiversity, we would not survive.” But it is a problem that the value of affected ecosystems is often not counted as policy-makers are not aware of what is actually being lost.

A trillion dollar bacterium — “Any species can contribute to biodiversity, and no one can know for sure which one will make a difference, and when”, says Thomas Lovejoy from the Heinz Centre. An enzyme from a little bacterium found in Yellowstone Park in the US, he says, has become an essential contribution to the field of molecular biology, that if you had to put a value on it, it would exceed $1 trillion.

What’s the Amazon worth? The Amazon Rain Forest, an area covering about 8 million square kilometers, is a powerhouse in terms of the ecosystem services it provides at the global, continental, regional and
local scale. According to Rosimeiry Portela from Conservation International, a study that applied the TEEB methodology found, with some simplification, that the Amazon’s photosynthesis and maintenance of the ecosystem structure - which allows it to store carbon - has a value of about US$1.5 to $3 trillion per year, if only there was a market for that, and at present, there is not. Another US$1 to $3 billion per year would be the Amazon’s value for its role in the water cycle that benefits agriculture. And still another $0.5-1 billion per year would be the value of the food and other natural resources for subsistence lifestyles and forest products.

**Action vs. inaction** — With a combination of different measures it will be possible to half the loss of species predicted by a business as usual scenario, says Ben ter Brink from the Netherlands Environmental Assessment Agency. A new study looked at the cost of policy inaction, and calculated what could be achieved, if policies would be put into action. Raising agro-productivity by 40 per cent, which implies closing the yield gap, would imply a 30 per cent reduction of species loss by 2050 and an expansion of protected areas a 10 per cent prevention of loss.

**Getting the nature-value message out** — Raising public awareness regarding the value of nature is one of the main challenges that policy-makers and the business sector are facing while implementing initiatives such as REDD, says Georgina Langdale, from TEEB communications. Nick Nuttall, UNEP spokesperson, says that there are many avenues to be explored in order to make of TEEB “a bottle that ages over the years,” but a major way to engage with the public is to tap into lifestyle – we are all consumers. If biodiversity issues are not to be the preserve of scientists, adds Sarah Bladen, from WWF International, there is an urgent need to simplify the language used, to speak to people’s own values and feelings, to personalise the benefits of biodiversity, and above all to not to push too much on biodiversity loss, a theme that is not too appealing for most people.

**Eyes wide open on biodiversity** — One of the most effective ways to draw citizens’ attention to the global economic benefits of biodiversity has been through diffusion of movies. A partnership between TEEB and the MOFiLM global community of filmmakers has been developed, from which 25 TEEB-related films have been selected and will be made available online at the TEEB website. Koko Niwa works for Green TV Japan, a global environmental movie media to provide information and increase citizens’ knowledge about biodiversity. An example is the “BioDaVersity Code,” a movie that exploits directly popular culture and another is the “Little Book” says Andrew Mitchell from the Global Canopy Programme, or the “Biodiversity Action Day” initiated in 38 countries on four continents, as pointed out Suhel Al Janabi, from GEOMedia.

“**We cannot risk taking nature for granted**” — The natural capital represented by goods and services provided by ecosystems, has been largely neglected, says Haripriya Gundimeda, co-coordinator of TEEB for local and regional policy makers. The term “GDP of the poor” which involves agriculture, animal husbandry and informal forestry—the key sectors that the developing world’s poor depend on for livelihood and employment - has been the most seriously hit by ecosystem degradation and biodiversity losses. Enhancing nature’s benefits through a focus on ecosystem services is thus an asset for local development, she says.

**Jaguar showroom** — Access to financing remains a critical barrier to achieving its biodiversity targets-especially, to increase marine protected areas by 14 per cent, to protect biodiversity and to serve as a barrier against hurricanes protection, says Gaspar Vega, Environment Minister of Belize. Belize already has seen value from protected areas—it has the only reserve in the world for jaguars.

![Trevor Sandwith TNC, Jason Spensley CBD Lifeweb, Minister Gaspar Vega Belize and Ms Zdenka Piskulich CEO Forever Costa Rica.](image)

**Building on natural capital** — One of the main incentives for companies to go green, explained Joshua Bishop, the Business and Enterprise Coordinator for the TEEB study, is the rising consumer demand for more eco-friendly products. Indeed, organic food global sales in 2007 have reached US$ 46 billion and the global market for eco-labelled fish products grew by over 50 per cent from 2008 to 2009. But indicators of biodiversity are complex and not suitable for business, he says, compared to measuring carbon emissions for climate change. Yet there are signs of progress - the mining giant Rio Tinto has adopted a triangular philosophy that integrates resources extractions, communities and nature conservation.

**Free Services**— In Michigan, of the United States, it is estimated that the US$124 million generated by blueberries companies, 90 per cent is reliant on the pollination work of bees. Companies are working with local farmers to encourage them protecting habitat of the little useful one. In Brazil, Marcos Vaz says the products of his company, Natura Comestics, could not exist without the innovation of nature and its species, seen as a vast unexplored potential, he says.

[http://ecosystemspavilion.org](http://ecosystemspavilion.org)
## Ecosystems Pavilion Programme Overview

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**Evening Sessions – Reducing emissions from degradation and forest degradation in developing countries (REDD)**
With UNEP and other UN REDD members

**Session 1: Inter-linkages of biodiversity, carbon and economics**

**Session 2: Traditional knowledge in conserving biodiversity and carbon**

**Session 3: Environmental safeguards and REDD**

**Session 4: Measuring and monitoring of biodiversity and ecosystem services within REDD**

**Session 5 (11am -1:30 pm): Empowerment of the biodiversity constituency in REDD processes**

**Evening Sessions – Commitments and international cooperation for financing synergies, in partnership with CBD’s LifeWeb**

**Session 1: Mesoamerican financing synergies through protected area solutions, featuring Costa Rica Forever and other national initiatives**

**Session 2: Caribbean and Micronesian financing synergies through protected-area solutions**

**Session 3: South American financing synergies through protected area solutions, featuring the Pan-Amazonian Vision**

**Session 4: West African Coastal and Marine financing synergies through protected area solutions**

Prepared by the Ecosystems Pavilion Team @Nagoya. Editor: Anne-Marie Wilson, Secretariat of the Convention on Biological Diversity; Writers: Dan Shepard, UN DPI, Amelie Nappert, Simone Schiele, Sarah Benabou, Secretariat of the Convention on Biological Diversity; secretariat@cbd.int

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