



# Rio Conventions' ECOSYSTEMS PAVILION

Linking biodiversity, climate change and sustainable land management

## Pavilion News Digest, 27 October, 2010

*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*

### **Ecosystem-based approaches for adaptation** **Tuesday, 26 October, Nagoya - Day 8**

**Moving beyond one-dollar-a-day**—Studies show that where people manage ecosystems more sustainably, the impacts of environmental risks are diminished, says Balakrishna Pisupati from UNEP. He says it is necessary to move away from the one-dollar-a-day paradigm and to realize the collective and combined opportunities ecosystems provide in reducing vulnerabilities and providing insurance against environmental risks, in a need-based and participatory fashion.

**Ecosystems to reduce poverty**—The use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change is mostly about poor communities, says Pavan Sukhdev, TEEB Study Leader. These are the people who are already being hit hard by climate change impacts. According to the TEEB Study, ecosystem restoration is one of the cheapest forms of adaptation to climate change—restoring a mangrove, for example, is highly beneficial to local fishermen communities, whereas restoring a forest can help to secure water supply. In Mumbai, India, city managers have cost-effectively enhanced flood regulation by maintaining green spaces for rainwater runoff. Social benefits that flow from ecosystem restoration are several times higher than the costs.

**The urban age** — For the first time in the history of humanity, more than half of the earth's population lives in cities, says David Cadman, President of ICLEI-Local Governments for Sustainability. With the issues of climate change adaptation and mitigation burning in urban areas and being felt in their watersheds, resources are needed right now if we want to avoid catastrophic climate change effects. "If you think mitigation is expensive, look at the cost of adaptation!" Prof. Thomas Elmqvist, Department of Systems Ecology, Stockholm Resilience Centre, says

ecologists are focusing more and more on urban landscapes and are finding that climate change will lead to more heat waves in cities. One way to deal with that is to increase urban vegetation, he says. Restoration can also contribute to reduce vulnerability to climate change, for instance in the case of cities located in coastal areas.



David Cadman, ICLEI – Local Governments for Sustainability

**Adaptation is local**— In the fight against climate change, local governments have a crucial role to play, says Jose Puppim de Oliveira, from UNU IAS, but they need the capacity and resources to be effective. Many solutions to adapting to climate change do not need expensive or scientific solutions, but rather good common sense.

**Experiments in Durban** — Since the end of apartheid in 1994, South African politics have increasingly taken into account environmental issues, identifying climate change as a risk to biodiversity and biodiversity as a potential solution to climate change. The city of Durban, says Dr Debra Roberts, Deputy Head of Environmental Planning and Climate Protection at eThekweni Municipality, is addressing climate change issues by protecting ecosystems that are crucial for the city, through an integrated plan for fire management, a

reforestation program to protect water catchments, and the promotion of indigenous species that thrive in local soil and climate conditions.

**Indigenous solutions**— Indigenous peoples living in fragile ecosystems are developing the capacity to use traditional knowledge and institutions in order to respond and adapt to the challenges of climate change, says Alejandro Argumedo from the Indigenous Peoples' Biocultural Climate Change Assessment. They are developing local bio-cultural methodologies and evidence-based adaptation strategies specific to a bio-cultural system that are cost effective and support the rights of communities in the face of rapid and extreme environmental changes.

**Adaptation by accident**— A project in the Philippines, aimed at the conservation of biodiversity by halting the loss of tropical rain forest, shows that restoring biodiversity habitat helps people to adapt to climate change, says Blas Tabaranza from the Haribon Foundation. "Rainforestation," he says, "addresses the basic needs of individuals, families and communities by providing an improved quality of life". At the same time, it promotes biodiversity conservation by restoring the actual native forest species—not planting production timber.

**Biodiverse farming**— Biodiverse farms are more resilient to the impacts of climate change, says Bell Batta Torheim from the Development Fund Norway. By maintaining a seed bank, a Honduras community hit by flooding and landslides in 2008 was able to immediately recover from a 90 per cent loss of crops without external help. More important than providing additional financing, she says, it is often more crucial to prioritize and put the right regulations in place.

**Connecting the dots**—It's important to connect the dots between the CBD, UNFCCC and UNCCD, says Leon Bennun from BirdLife International. Even if it seems difficult for the three conventions to "talk to each other" – it is important not to put those issues into different boxes but make connections happen in practice and on the global level.

**Oceans and climate change**—Oceans work to regulate climate and temperature by generating oxygen and absorb carbon dioxide on the scale of 30 per cent of all CO<sub>2</sub> emitted to the atmosphere, says Biliana Cicin-Sain from the Global Forum of Oceans, Coasts and Islands. Accordingly, she says, there is a need to develop a comprehensive approach to oceans and climate, both within and outside the UNFCCC, and to

significantly upscale the efforts with additional financing.

**Defending against climate adversity**—An ecosystem approach can play a pivotal role in guarding against adversity, says Heikki Toivonen from the Finnish Environment Institute. The capacity of a species to recover from climate change impacts can be enhanced by reducing other pressures such as pollution, loss of habitat of species or invasive alien species. Invasive alien species management should also be integrated into marine and coastal ecosystem-based adaptation, says Stas Burgiel from the Global Invasive Species Programme. For example, the Nutria, a rodent native to South America, is eating up marshland and wetland vegetation, and causing the erosion of coastal ecosystems, leaving inland coastal areas more vulnerable to storms. Along with rising sea levels, this can lead to disastrous results.

**A biodiversity hot-spot in danger** — Coral reefs only cover 0.18% of the oceans' surface, but they host 6-9 million species, including 25 per cent of the world's marine species, says Alex David Rogers from GLOBE. Threatened by ocean acidification, coral reef ecosystems are expected to collapse by the end of the century if the current rate of increase of CO<sub>2</sub> in the atmosphere is not halted.

**Back to life**—There are as many as 500 "dead-zones" in the world's oceans, says David Cunningham from the GEF Scientific and Technical Advisory Panel Secretariat. Caused mainly by human induced nutrient pollution close to population centres, he says integrated and multi-sectoral actions must be implemented to address the problem.

**Correcting old mistakes**— Ecosystem-based adaptation often has to start with the restoration of ecosystems, says Angela Andrade Perez from IUCN and must first address the negative cumulative effects of past interventions in ecosystems like canalization of rivers and transformation of ecosystems.



Angela Andrade Perez IUCN and Alejandro Argumedo Indigenous Peoples' Biocultural Climate Change Assessment

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*<http://ecosystemspavilion.org>*

*DISCLAIMER: The opinions expressed in the activities of the Ecosystems Pavilion do not necessarily reflect those of the CBD, UNCCD and UNFCCC secretariats, the Parties to the Rio Conventions or other Pavilion partner organization.*



At the GLISPA Fiesta after the Financing synergies event – Beyond 2010: Celebrating Island Leadership and Commitment to Conservation and Sustainable Livelihoods.

## Ecosystems Pavilion Programme Overview

18 October, Monday	<i>The linkages between biodiversity, sustainable land management and climate change</i> With the European Commission and other partners	Evening Sessions – Reducing emissions from degradation and forest degradation in developing countries (REDD) <i>With UNEP and other UN REDD members</i>
19 October, Tuesday	<i>Key role of protected areas in climate change adaptation and mitigation strategies</i> With IUCN WCPA and other partners	Session 1: Inter-linkages of biodiversity, carbon and economics
20 October, Wednesday	<i>Indigenous peoples and communities – benefits and livelihoods</i> With UNDP, Conservation International and other partners	Session 2: Traditional knowledge in conserving biodiversity and carbon
21 October, Thursday	<i>Forest biodiversity: mitigation and adaptation – the linked benefits provided by forests</i> With members of the Collaborative Partnership on Forests and other partners	Session 3: Environmental safeguards and REDD
22 October, Friday	<i>Water, ecosystems and climate change</i> With SCBD and other partners	Session 4: Measuring and monitoring of biodiversity and ecosystem services within REDD
23 October, Saturday	<i>UNCCD Land Day 3</i>	Session 5 (11am -1:30 pm): Empowerment of the biodiversity constituency in REDD processes
		<b>Evening Sessions – Commitments and international cooperation for financing synergies, in partnership with CBD's LifeWeb</b>
25 October, Monday	<i>Economics of ecosystem services and biodiversity, climate change and land management</i> With TEEB and other partners	Session 1: Mesoamerican financing synergies through protected area solutions, featuring Costa Rica Forever and other national initiatives
26 October, Tuesday	<i>Ecosystem-based approaches for adaptation</i> With IUCN, ICLEI and other partners	Session 2: Caribbean and Micronesian financing synergies through protected-area solutions
27 October, Wednesday	<i>Promoting synergies for sustainable development and poverty reduction</i> With UNDP and other partners	Session 3: South American financing synergies through protected area solutions, featuring the Pan-Amazonian Vision
28 October, Thursday	<i>Ecosystems and Climate Change Pavilion Summit: Moving Towards Rio+20</i>	Session 4: West African Coastal and Marine financing synergies through protected area solutions

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