

COURSE REPORT

The Economics of Ecosystems and Biodiversity (TEEB) for Regional and Local Policymakers in Brazil's Northeastern Biodiversity Corridor

Recife, Pernambuco – Brazil
March 18-22, 2013

A field course organized by:

Environmental Leadership & Training Initiative (ELTI)

Northeast Center for Environmental Research (Centro de Pesquisas Ambientais do Nordeste – CEPAN)

The Pernambuco State Agency of Environment (CPRH)

Background: The Northeastern Biodiversity Corridor is a conservation strategy created by Conservation International, which the Northeast Center for Environmental Research (CEPAN) adopted and has been implementing in one of the two most threatened hotspots located within Brazil's Atlantic Forest.

The remaining forests in the Northeastern region of Brazil's Atlantic Forest amount to less than 12% of the territory and are located primarily in small, isolated fragments dispersed in an urban and agricultural matrix. The loss and fragmentation of the forests, along with other anthropogenic disturbances, dramatically alter their structure and composition and significantly reduce their potential to maintain biodiversity and provide ecosystem services.

Nonetheless, the Northeastern Corridor still contains a great diversity of endemic flora and fauna, having close to 8% of the vascular plant species, 66% of bird species, 28% of amphibian and reptile species and 46% of mammal species of the entire Atlantic Forest. Moreover, scientists are still discovering new species of birds, reptiles and bromeliads in the region.

In addition to the biophysical complexity of the region, many decision-makers have little knowledge about biodiversity conservation and ecological restoration, thereby further limiting the recovery of the ecosystem. This gap has direct implications regarding the ability of managers and policy makers to lead and establish conservation initiatives in the most endangered Atlantic Forest region of Brazil.

Given this context, one approach to addressing the drivers of biodiversity loss and the collapse of ecosystem services is to incorporate the value of biodiversity and the costs of its loss into the region's economy and public policies. The Economics of Ecosystems and Biodiversity (TEEB) is a series of reports written by a team of professionals that are aimed towards national and international policy makers, the business sector and civil society. The goal of the TEEB



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reports is to ensure that policy makers are able to apply strategic and economic thinking to the use of ecosystem services and biodiversity so that they can provide society with the tools to incorporate the value of nature in decision making at all levels.

The goal of this course was to introduce the principles and guidelines of the “TEEB for Local and Regional Policy Makers” report to policy makers from the Northeastern Biodiversity Corridor region so that they are better able to assess the value of their natural capital and implement strategies that can better factor the value of ecosystem services into local policy action in the Atlantic Forest.

Objectives:

- Train local and regional policy makers from multiple local and regional offices on the principles of the TEEB approach;
- Present economic valuation methods that will allow them to recognize the worth of biodiversity and environmental services in their states;
- Promote a better understanding of the social and economic effects of the loss of biodiversity, ecosystems, and the services they provide, both today and in future scenarios;
- Present a wide range of economic instruments as tools to integrate the economy of ecosystems and biodiversity with sectorial policies and development objectives;
- Teach the methodology to conduct an environmental assessment and characterization of the production units found in working landscapes;
- Present the guidelines for designing context-specific processes to help assess, consider and include natural capital and ecosystem services into more adequate policies;
- Give participants the opportunity to meet and establish collaborations in order to generate ideas that can be supported by ELTI’s Leadership Program;

Format: The course took place over five days and was divided into five modules, each of which included a series of talks and case studies. One site visit was also incorporated into the agenda to illustrate the concepts presented during the classroom presentations. The course also included an activity designed to help participants apply the new material to their professional contexts.

In the first module, the instructors presented the basic concepts related to ecosystems, ecosystem services and functions, and biodiversity. The objective was to create a link between the benefits and value of biodiversity and ecosystem services and human wellbeing, demonstrate the relationship between ecosystem services and the economy and introduce TEEB principles and guidelines as a framework to address some of the issues.



During the second module, the instructors offered lectures and case studies to introduce the basic economic concepts, biodiversity and ecosystem services valuation, and mechanisms that incorporate biodiversity and ecosystem services value into decision-making. The goal of the module was to demonstrate the economic value of biodiversity, ecosystems, and environmental services.

The third module included various mechanisms to capture the value of biodiversity at the local and regional levels. The lectures were followed by a visit to the State Park "Dois Irmãos", where a payment for environmental services scheme (Projeto Água do Parque) was signed between the park and the water treatment company (Compesa).

The fourth module consisted of lectures and case studies on the principles of tropical forest restoration and how these principles are applied in the design of restoration actions for different environmental situations and according to the applicable environmental legislation.

In the final module the instructor proposed an array of strategies that could help manage natural capital in a better way and include ecosystem services in local and regional policies. A final exercise was designed for participants to utilize TEEB's stepwise approach to appraising nature's benefits so that participants can apply the guidelines to design context-specific strategies and presented them to their peers.

Instructors and Coordinators: The instructors covered different topics depending on their expertise: Dr. Severino Riveiro Pinto (CEPAN) presented on the ecological principles of ecosystems, ecosystem services and biodiversity, as well as their importance to local and regional economies. He also explained the TEEB framework for Brazil, the ecological restoration perspectives for Brazil's Northeastern Biodiversity Corridor and the legal framework applicable to environmental compliance in rural landscapes. Carlos Eduardo Menezes (Federal Institute of Education, Science and Technology of Pernambuco – IFPE) presented the principles of environmental economics, the value of environmental services in local policymaking and compensation schemes for conservation (ex. PES).

Special guest instructors for this course included: Oscar Sarcinelli (Institute of Ecological Research – IPÊ), who introduced various tools for the environmental valuation of ecosystem services and Adriano Vicente (CEPAN), who discussed the principles and strategies for tropical forest restoration and presented the guidelines for environmental compliance for working landscapes.

The course was coordinated by Cecilia Del Cid-Liccardi (ELTI) in collaboration with Severino Riveiro Pinto (CEPAN), and organized by Saskia Santamaria (ELTI), Cristiane Lucena Barbosa and Gabriel Favero (CEPAN).



Participants: We initially received 66 applications to attend the course from government officials, representatives of the business sector, staff-members of NGOs and academics, from four states of Brazil. From this pool, 35 participants from the states belonging to the Northeastern Biological Corridor were selected. Participation by professionals from different agencies was encouraged, including employees of Prefectures, Secretariats, State Environmental Agencies, and Utility companies. Those participants facing political or technical environmental challenges were especially welcome.

Outcomes and Follow-up: Participants were actively engaged throughout the course. They worked in groups to apply TEEB's approach to their particular sector, presented their action plans, and also benefited from the feedback they received from instructors and their peers. ELTI's Leadership Program also generated interest among participants and will work with CEPAN to identify the most promising candidates in order to help them carry out their initiatives.



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