

COURSE REPORT

Principles for the Design and Implementation of Economic Instruments and Compensation Schemes for Environmental Services

**Cali, Valle del Cauca – Colombia
March 3 – 9, 2013**

A field course organized by:

The Environmental Leadership & Training Initiative (ELTI)
Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria (CIPAV)
Corporación Autónoma Regional del Valle del Cauca (CVC)
Patrimonio Natural: Fondo para la Biodiversidad y las Áreas Protegida

Background: Colombia is globally recognized as a megadiverse country. The Colombian territory covers less than 1% of the land surface of the planet, but contains 10% of the world's species (McNeely et al, 1990). Despite this enormous biological wealth and the efforts made to develop conservation policies and environmental regulations, declare protected areas and implement different processes of land use planning, Colombia still faces the deterioration of natural resources and the loss of biodiversity. These losses are due, in large part, to the advance of the agricultural frontier, agro-industrial crops, and the mining and energy activities that exert strong pressures and heavily impact different types of terrestrial and aquatic ecosystems.

To address this decline, Colombia relies on the country's environmental legal framework that has been in place since the seventies, which provides guidelines for the sustainable management of natural resources and the development of economic instruments to promote conservation and restoration efforts. As recent as 2012, Colombia published the National Policy for the Integrated Management of Biodiversity and its Ecosystem Services (PNGIBSE) and developed a manual for the allocation of compensation for biodiversity losses.

Despite these advances in the country's laws and environmental policies, the development and regulation of instruments regarding the compensation and/or payment for ecosystem services still lags in comparison to other Latin American countries, such as Costa Rica, Mexico, Ecuador and Brazil. The most recent policies addressing this issue can be found in the National Development Plan (Law 1450, 2011), which states that no less than 1% of the municipal and state income should be invested each year in areas of strategic importance for the conservation of hydrologic resources



PRINCIPIOS BÁSICOS PARA EL DISEÑO Y APLICACIÓN DE INSTRUMENTOS ECONÓMICOS Y ESQUEMAS PARA LA COMPENSACIÓN POR SERVICIOS ECOSISTÉMICOS EN COLOMBIA

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through instruments such as the purchase and maintenance of properties and the financing of payments for environmental services schemes. Nonetheless, local authorities and the environmental sector are still waiting for the regulations to be issued.

Giving this context, the experiences that currently exist in Colombia on payments for environmental services (PSE) are based on pilot projects in the early stages of design or execution. These pilot initiatives can provide valuable lessons learned for the implementation of a national PES strategy, which was developed in 2007.

This course is divided into two sections that the same participants will take at different times. The objective of the first course, which took place March 3-9, 2013 is to strengthen PES initiatives that are already underway in Colombia, using the Cali River Watershed as an example. This case study was selected for the course because it allows us to illustrate the benefits ecosystems provide in the provision of water quality and quantity and hydroelectric power generation for part of the city of Cali. The second course, which will take place during the last quarter of 2013, will introduce participants to the ecological principles for the restoration of ecosystem services.

Objectives– Course 1:

- Introduce the concepts of ecosystems “goods and services” (focusing on those that are provided by tropical forests) and the main anthropogenic and natural threats and pressures that impact them;
- Provide participants with a solid foundation in principles of compensation and payments for ecosystem services (PES);
- Provide participants with theoretical, conceptual and methodological tools for the design and operation of compensation and payment for ecosystem services schemes;
- Introduce participants to PES case studies throughout the region;
- Provide a brief introduction to concepts and methodologies for the development of ecological restoration programs at different scales, which will be the focus of the next course; and
- Provide participants with the opportunity to meet other people throughout the region involved with compensation/payment schemes and to create a network of peers.

Format: The course took place over six days and was divided into six modules, each of which included a series of lectures and case studies. Two site visits were also incorporated into the agenda to illustrate the concepts presented during the lectures in a field setting. The course also included a session during which participants presented their initiatives. The objective was to allow them the opportunity to incorporate the new concepts into their project and receive feedback from instructors and peers.

During the first module, the instructors presented the basic concepts related to ecosystems, ecosystem services and functions, biodiversity and threats to these resources. Site visits to the electricity company EPSA (Pacific Power Company S.A.) and the water treatment plant of EMCALI (Cali Municipal Enterprises) were conducted to accompany this module to demonstrate the concepts of ecosystems, the benefits and services they provide and their impact on human wellbeing.



During the second module, the instructors provided lectures, case studies and exercises to introduce the concepts of conservation economics and market failures. The goal of the module was to provide the participants with a foundation in economics and to demonstrate the importance of economic principles when designing of compensation and payment schemes for conservation and restoration projects.



The third module included 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 contexts. Participants were taken on site visits to a private reserve and a municipal property to illustrate examples of restoration efforts at varying scales within the Cali River Watershed.

The fourth module included an introduction to the legal framework that applies to economic instruments and compensation/payment for environmental services schemes in Colombia.

In the fifth module, the instructors provided an introduction to ecosystem services valuation and mechanisms and strategies that incorporate their value on decision-making. The goal of the module was to demonstrate that well-designed compensation/payment for environmental services schemes could facilitate and/or fund forest conservation and restoration efforts.

During the sixth and final module, instructors presented various case studies to illustrate some of the most important lessons learned from these experiences. The session concluded with presentations from participants who are developing PES projects and allowed for comments and feedback from instructors and peers.



Instructors and Coordinators: The instructors covered different topics depending on their expertise: Dr. Jorge H. Maldonado (University of the Andes), Rocío del Pilar Moreno (Conservation Strategy Fund - CSF), and Carmenza Castiblanco (National University of Colombia) presented the principles of conservation economics and economic valuation, as well as various methods and tools for the environmental valuation of ecosystem services and their relevance to the design and implementation to compensation and payment for environmental services schemes.

Zoraida Calle, Dr. Julián Chará, and Víctor Galindo (CIPAV) covered the ecological principles of ecosystems, ecosystem services and biodiversity and presented the principles and strategies for tropical forest restoration and guided de site visits.

Special guest instructors for this course included: Dr. Brigitte Baptiste (Humboldt Biological Resources Research Institute), who provided the keynote presentation: Introduction to Environmental Services; Gloria Sanclemente (ECOVERSA Corporation), who gave a presentation on the legal framework that is applicable to compensation

and payment for environmental schemes in Colombia; and Jeimar Tapasco (Centro Internacional de Agricultura Tropical –CIAT), who shared lessons learned from PES projects and strategies on how to communicate them to decision makers.

The course was coordinated by Cecilia Del Cid-Liccardi (ELTI), in collaboration with Antonio Solarte (CIPAV), and was organized by Saskia Santamaria (ELTI), Iván Valverde and Victor Galindo (CIPAV).

Participants: This course was offered to thirty representatives from government, environmental organizations and NGOs, all of whom are working on the design and implementation of payment for environmental services schemes (at least 5 or 6 cases) in multiple regions of Colombia.

Outcomes and Follow-up: Participants were actively engaged throughout the course, and benefitted from the opportunities to network and discuss project ideas with instructors and other participants. They are also looking forward to the second part of the course, during which they will learn about the principles of restoration. ELTI's Leadership Program also generated interest among participants, many of whom have projects in the early stages of implementation and thus can use all the support available to them. The LP will work with CIPAV to identify the most promising candidates and to help them develop and carry out their initiatives.



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