







# FINAL REPORT Capacity Building Workshop Valuation of Ecosystem Services for Effective Public Policy in Latin America

13-15 August 2012 Quito, Ecuador

Elaborated by Roldan Muradian and Dania Quirola

#### 1. Justification

The current high prices of commodities are inducing high rates of economic growth across Latin America but also an expansion of the agricultural and resource extraction frontiers into ecologically and socially sensitive areas. Such process often entails a serious threat to natural ecosystems and the social groups that inhabit them. The ecosystem services approach aims at identifying the benefits ecosystems provide to human societies, in order to raise awareness about the importance of their conservation.

The valuation and realization of the economic values of ecosystem services are expected to enhance the incentives of both policy makers and resource users to conserve natural ecosystems, and to enable the emergence of development models that rely on the protection of natural ecosystems, instead of on their destruction. To convert the economic value of ecosystem services into actual cash flows is expected to contribute to create development alternatives to extractive industries.

Thus, the policy agenda aiming to enhance the social valorization of ecosystem services characteristically tries to reconcile the protection of natural ecosystems with the promotion of economic alternatives that are capable to realize such value and generate wealth for further redistribution in a context of environmental justice. The training workshop will deal with innovative tools and policy responses to acknowledge the value of ecosystem services and to make them the core of alternative models to the existing economic development.

The workshop was framed by the intention to set up a Latin American platform (network or think tank) dealing with policy innovations for realizing the values of ecosystem services. Such platform (led by governments from the region) will promote processes of policy innovation by means of encouraging research and sharing experiences of innovative public policies for converting ecosystem services into drivers of economic development.

The overall objectives of the training workshop were:

- a) To enhance the capacity of senior level policy makers from the Latin American region to evaluate the different dimensions of ecosystem services, and to incorporate such values into policy design.
- b) To share innovative experiences (tools and policy responses) from Latin America for realizing the economic value of ecosystem services.
- c) To launch a Latin American platform for the promotion of innovation in the field of public policies aiming to realize the social and economic value of ecosystem services.

**Target group**: Government officials from Latin American countries engaged in *policy design* in both the field of ecosystem services and economic development

The workshop made use of different methods (master classes, field visit, multi-stakeholder discussions and active participation by participants), in order to enlarge the possibilities of exchange and mutual learning. The program was divided into three main parts:

- (1) General context and conceptual background
- (2) Tools for policy design: Assessment, accounting and valuation tools for ecosystem services
- (3) Novel policy responses.

#### 2. Program

Day 1: General context and conceptual background

Time	Topic	Speaker
8:00- 8:30	Opening Session	Fander Falconí, National Secretary of Planning and Development, SENPLADES, Ecuador
		Mara Angélica Murillo, Deputy Regional Director, UNEP-Panama
		Steven Stone, Chief, Economics and Trade Branch, UNEP, Switzerland
		Mercy Borbor, Minister of the Environment of Ecuador
		Juan Ponce, Director FLACSO-Ecuador
8:30 - 9:10	Mainstreaming of the ecosystem services into development policy through the tools and techniques of ecological economics	Pushpam Kumar, Chief, Ecosystem Services Economics Unit. United Nations Environment Programme (UNEP), Kenya
9:10- 9:50	The re-primarization of Latin American economies: environmental implications	Roldan Muradian, Radboud University Nijmegen, The Netherlands
10:30-11:00	Break	
11:00-11:40	Environmental Justice, commodity frontiers and socio-environmental conflicts in Latin America	Joan Martinez-Alier, Universidad Autónoma de Barcelona, Spain
11:40-12:30	Open discussion	
12:30-13:30	Lunch	
13:30-15:10	Integrated assessment and accounting of ecosystem services at the national level.	Juan Pablo Castañeda, IARNA, Universidad Rafael Landivar,

	Examples from Guatemala	Guatemala
15:10-15:40	Break	
16:00-17:00	Rethinking Environmental accounting in	Maria Cristina Vallejo,
	Latin America	FLACSO-Ecuador

Day 2: Tools for policy design: Assessment, accounting and valuation tools for ecosystem services

Time	Topic	Speaker
8:30- 10:30	Basics of Multi-criteria Assessment	Rafael Burbano, Advisor SENPLADES, Ecuador
10:30- 11:00	Break	
11:00- 11:40	Multi-criteria Analysis of Yasuní ITT Initiative	Rafael Burbano, Advisor SENPLADES, Ecuador
11:40 -12:30	Innovative policies for recognizing environmental services: Socio Bosque/Forest Partnership Program, Ecuador	Max Lascano, Director Socio Bosque Program, Ministry of the Environment, Ecuador
	Carbon sequestration as ecosystem service	Carola Borja, Undersecretary of Climate Change, Ministry of the Environment, Ecuador
12:30-13:30	Lunch	
13:30-16:30	Land planning and ecosystem services. Examples from Colombia	Paula Ungar y Alexander Rincón, Alexander von Humboldt Institute, Colombia
16:30-18:00	Open	
18:00-19:30	Round table: Applying integrated approaches to policy design in the field of ecosystem services	Dania Quirola, Advisor, SENPLADES (moderator)
		Pushpam Kumar, Chief,
		Ecosystem Services
		Economics Unit. United
		Nations Environment Programme (UNEP), Kenya
		Mara Angélica Murillo Correa Deputy Regional Director, UNEP-Panama
		Laura Fernández, Advisor, Ministry of National Planning and Economic Policy, Costa Rica
		Paula Ungar, Alexander von Humboldt Institute, Colombia
		Daniel Ortega, Advisor, Ministry of Foreign Affairs, Trade and Integration, Ecuador

Day 3: Novel policy responses

Time	Торіс	Speaker
8:30- 9:10	Innovative policy responses from Costa	Laura Fernandez, Advisor,
	Rica: National moratorium on oil and	Ministry of National Planning
	mining; national policy on low carbon	and Economic Policy, Costa
	economic development	Rica
9:10- 9:50	Innovative policy responses from Brazil:	Helena Carrascosa,
	Payments for ecosystem services in the	Government of the State of
	state of Sao Paulo	Sao Paulo, Brazil
9:50-10:30	Innovative policy responses from	Lorena Tapia, Ministry of the
	Ecuador: Environmental liabilities and	Environment, Ecuador
	national plan of environmental	
	remediation	
10:30-11:00	Break	
11:00-12:30	Setting up the Latin American platform	Roldan Muradian, Radboud
	on "policy innovations for realizing the	University Nijmegen, The
	values of ecosystem services" (round 1)	Netherlands
12:30-13:30	Lunch	
13:30-14:30	Setting up the Latin American platform	Roldan Muradian, Radboud
	on "policy innovations for realizing the	University Nijmegen, The
	values of ecosystem services" (round 2)	Netherlands
14:30-15:30	Closing the workshop. General discussion	SENPLADES, UNEP, FLACSO,
	about the way forward (UN organizations	Ministry of the Environment
	and policy innovation in Latin America in	Ecuador, Roldan Muradian
	the field of ecosystem services).	

#### 3. Results

## 3.1 Summary

The overall objectives of the workshop were met. Governmental delegates attended the workshop from Bolivia, Brazil, Costa Rica, Ecuador, Guatemala, Honduras, and Peru (Annex 1 includes the list of participants). It addressed both conceptual issues as well as practical examples of innovative policies dealing with ecosystem services in Latin America. The round table was very successful. About 130 people attended it. The participants had a very positive evaluation of the workshop, and recommended to proceed with the idea to set up a regional network for the promotion of innovative public policies for enhancing the provision of ecosystem services and the revalorization of nature. There was media coverage both in television, radio and official websites.

## 3.2 Subjects addressed during the workshop

The workshop started with a lecture on mainstreaming of the ecosystem services into development policy through the tools and techniques of ecological economics. Next was presented a general description of the current opportunities and challenges faced by natural ecosystems in Latin America, especially under the context of high prices of natural resources that has characterized the last decade. High rates of economic growth has been accompanied by an expansion of the frontiers of exploitation of natural resources, which entails rising pressures and risks on natural ecosystems and on some of the communities that inhabit them

(normally socially vulnerable). This situation requires alternative models of development of public policies, capable of acknowledging the social values of ecosystems and of incorporating these values within national planning strategies.

The social metabolism is a way to visualize the size and pressures of the economic system on the environmental system. During the workshop, historical trends in the use and trade of natural resources for some Latin American countries were shown. During the last decade there has been a clear expansion in the flow of materials and a "re-primarization" of most Latin American economies (a rise in the relative importance of the primary sector, particularly in exports).

The design of alternative economic policies capable to overcome the primary specialization requires the social revalorization ecosystems, the social groups that inhabit them and their ecosystem services. An important part of the workshop was allocated to discuss the conditions that make the valorisation of ecosystem goods and services more effective.

Among the recommendations by experts are: the process of valuation should have a clear purpose; it must be context-specific be focused on evaluating marginal changes (due to the existence of thresholds and non-linear dynamics); and it should incorporate uncertainty through sensitivity analyses. The value of ecosystems is socially constructed, and therefore attention should be paid to institutional aspects and to take into consideration the diversity of concerned actors. As well, it is important to adopt plural methodological approaches and to enable inter-disciplinary collaboration. Simplistic valuation approaches should be avoided. The articulation between the academia and decision makers is critical for reconciling short-term requirements with a long-term vision.

There are many alternatives and methods for the social evaluation of ecosystem services. In relation to valuation of biodiversity, an alternative to the cost-benefit analysis is to identify first social objectives and then to determine which is the most cost-effective policy tool to achieve those objectives. Water is another clear example of basic natural resource whose management can hardly follow exclusively cost-benefit logic. At the same time that the use of market approaches to solve environmental problems is rising, other languages of valuation are also gaining strength.

When reparation and compensation for environmental liabilities are needed, monetary assessment of the loss of ecosystem services and biodiversity are considered. However, in other contexts might be counterproductive. The language of monetary compensation may play a role in the global co-responsibility, as shown by innovative proposals in that direction, such as the Yasuni-TT initiative. Nonetheless, the defense of natural ecosystems against mines, dams, plantations, etc. often appeal to non-monetary values, such as the right to existence, the dependence of local livelihoods on the concerned resources, territory rights, indigenous identity, local democracy or sacredness. Such defense can also appeal to the "rights of nature", granted in the Ecuadorian constitution, for instance.

Multi-criteria analysis is a tool for decision making that assumes incommensurability of values, and therefore it incorporates a variety of variables, in their own units of measurement. During the workshop participants were exposed to the foundations of multi-criteria analysis (for which type of decision-making processes it be utilized; basic principles; way it operates), and a concrete example was shown (application to the Yasuni-ITT initiative). Another attempt of integrated assessment of ecosystem services (still in initial state) in the Otun watershed (Risaralda) in Colombia was also explained. In such case (led by the Alexander von Humboldt Institute), emphasis is made in identifying the stakeholders involved as providers and

beneficiaries of ecosystem services, as well as in the management of the watershed, in order to take decisions about the management of such services. Integrated assessment and multi-criteria valuation constitute an alternative (and sometimes a complement) to the cost-benefit analysis for the evaluation of ecosystem services.

At the macro and national levels, the systems for integrated (economic-environmental) accounting also constitute very useful tools to evaluate the contribution of ecosystem services to the national or regional economy. During the workshop we have seen an interesting example of how these systems are developed, taking as case study the integrated accounting system of Guatemala. The development of this system required considerable collaboration between different bodies and at different scales, which entailed significant challenges. Some results of concrete applications of such system were also presented. Some of the conclusions reached through the analyses conducted making use of the system are the following: (a) Natural capital is being depleted across time; (b) Flows from nature to the economy surpass the regeneration capacity of ecosystems, inducing degradation and depletion (c) the flows from the economy to nature are not enough to ensure its appropriate conservation (d) The unbalances make the system unsustainable (e) The system is not properly regulated in relation to these unbalances. The adopted model of integrated accounting can be improved. It offers however the possibility to integrate in a single framework different critical elements to take into account when evaluating the economic and environmental performance of a nation.

After the conceptual introduction and the analysis of trends, the workshop shifted the subject to show concrete examples of innovative public policies that are contributing to acknowledge the importance of ecosystem services, and to incorporate them in decision making processes about the management of resources and the territory. In this regard, the Socio-bosque program is an emblematic policy in Ecuador. It aims at contributing to the conservation of native forests and paramos. In 2009, the Ecuadorian state started to provide direct payments to both communities and individuals for the conservation of these ecosystems. By 2012, the more than one million hectares are enrolled in the program, 90% of which are under communal indigenous rights. The program is meant to contribute to the conservation of native ecosystems at the same time that it improves the living conditions of vulnerable rural dwellers. The amount of the payment by hectare diminishes with the number of enrolled hectares, thus avoiding the excessive accumulation of resources to the owners of bigger properties. In addition, we addressed the subject of carbon absorption as an ecosystem services, and the institutional progress in Ecuador in consolidating a National Strategy for Climate Change.

Another innovative public policy in Ecuador is the Program for Social and Environmental Reparation (PRAS), whose objectives are: (a) To evaluate the environmental damage caused by a given activity (estimation of the liability), particularly of the extractive industries. (b) To evaluate economically the damage (by means of estimating the effects on the provision of ecosystem services) y (c) to set up measures for restoration. This policy constitutes a great innovation in Latin America and if it is executed properly it could play a very important role in reducing environmental liabilities of the mining and oil industries, as well as in remediating the damages incurred in the past.

From Colombia we saw the basic principle of the new National Policy for the Integrated Management of Biodiversity and its Ecosystem Services. Such ambitious policy covers wide themes and fields. Its implementation requires a high degree of inter-institutional coordination. The following are some of the basic principles of this policy: (a) It acknowledges the inter-dependent relationship between the social and ecological systems, through ecosystem services; (b) Environmental conservation emerges from the use, valorisation, knowledge and maintenance of biodiversity; (c) Change and uncertainty are taking as

determinant factors, and the precautionary principle is taken as a guiding approach; (d) the policy should be expressed in land planning strategies; (e) It seeks a balance between the interest of society and social and sector co-responsibility; (f) It promotes changes in the functioning of institutions: decentralization, flexibility and adaptation. This policy has been just approved, and it is currently in its fist phase of execution.

Another pioneer country in the field of environmental public policies is Costa Rica. During the workshop, recent and emblematic policies in Costa Rica were presented, such as the National Strategy on Climate Change, which aims to achieve 95% of electric energy from renewable sources, and Costa Rica becomes in a carbon-neutral country in one decade. The strategies comprises the following working axes:

- · Mitigation of greenhouse gases
- Adaptation to climate change for reducing the vulnerability of the main sectors and regions of the country
- · A reliable, measurable, and precise system of metrics
- · Capacity development and technological transfer
- Financing mechanisms
- · Awareness raising, and promoting changes of consumption patterns

In the field of mitigation, the strategy foresees:

- Reduction in the emissions of greenhouse gases in the source (energy, transport, agriculture, manufacturing, management of solid wastes, tourism and other land uses)
- · Capturing and storing carbon: reforestation, agro-forestry systems, avoided deforestation, natural regeneration of forest cover
- Development of carbon markets: financial consolidation of the PES program, voluntary carbon markets, official carbon markets, and C-neutral label (local market)

Using a case study from Costa Rica we have also seen how socio-environmental conflicts can trigger new public policies favourable to the conservation of ecosystem services. In response to an environmental conflict due to the effects of a mine in Crucitas, in May 2011 the government of Costa Rica approved an indefinite moratorium for mining activities of metals. As well, in August 2012 the government declared a moratorium on oil exploitation for three years. Such moratorium is founded on three principles: (a) The Costa Rican state must ensure the constitutional right to a healthy environment; (b) The executive power considers that the current socio-economic conditions are different to the ones prevailing during 1990s, when the hydrocarbon law was enacted, and therefore it has taken the decision to stay away from the extractive industry. (c) The global flight against global warming must be taken into consideration. The energy structure should be oriented towards the renewable sector. The environmental cost of oil exploitation should be taken into account. Costa Rica does not depend on oil revenues, and it counts with a productive structure based on knowledge, services, tourism and agri-business for exports.

Brazil is another leading country in the field of policies for enhancing the provision of ecosystem services. Several Brazilian cases (and in particular from the state of Sao Paulo) of PES were presented during the workshop. The state of Sao Paulo has approved recently a legal framework for the execution of this type policy, and there is currently a considerable expansion in the application of PES in this state. In state of Sao Paulo, there are several projects in preparation or execution: (a) The Mina D'Agua project: It includes 21 municipalities and mobilizes 3.5 millions of US\$. This project is focused on watershed Management; (b) Support to the private reserves of the natural heritage; which aims to promote the conservation and

restoration of ecological processes in the existing reserves and to stimulate the creation of new ones, in priority areas for biodiversity conservation. This project mobilizes about 2 millions US\$. (c) Climate and Biodiversity in the Mata Atlantica (in preparation); which is going to mobilize about 169 US\$. This project comprises three components: 1. Institutional strengthening and research; 2. Increase in carbon in the biomass and in the soil, including a component of PES; and 3. Improvement in the administration of natural resources in the buffer areas, which also include PES and other mechanisms (certification, support to green value chains).

#### 4. Agreements and conclusions

The country delegates and the other participants in the workshop considered that it is pertinent to set up a platform for knowledge management for the revalorization of nature and related public policies in Latin America. Such a regional platform would aim to promote the exchange of concepts and methods, as well as successful experiences of design and application of public policies for the revalorization of nature.

The knowledge exchange should include new methods for the valorization of ecosystems. The platform should organize periodic events of capacity building, as well as the elaboration of new materials for policy incidence and training, in order to show the intellectual capacity of a biodiverse Latin America that is culturally sensible to Nature. Offices of public planning would compose such platform, together with the environmental authorities and academic institutions related to the priority themes. The platform should respond to regional mandates for articulation and development of capacities, and it should count with a coordinator for the management of knowledge. SENPLADES will make available online the material distributed during the workshop, and it expects to connect the proposed platform with REDEPLAN (the network of planning agencies in Latin America).

Within the framework of planning, the platform will try to count with the support of REDEPLAN (Red de América Latina y el Caribe de Planificación para el Desarrollo) in order to have an electronic space for information exchange. The Presidency of REDEPLAN is currently in Guatemala. By means of linking the platform with REDEPLAN, some steps will be taken to comply with the mandate of the Quito declaration of the ministers of the environmental in Latin American and the Caribbean. UNEP will facilitate technical assistance; the strengthening of capacities and it will support the mobilization of financial and human resources for carrying out the activities of the platform, within the framework of its mandate and working program.

The participants in the workshop acknowledged the existence of networks about valuation of the environment and the participation of some governmental agencies in them. Therefore, they agreed to conduct a mapping of the existing networks dealing with ecosystem services, at different scales, such as the learning community on PES in Brazil (http://www.aprendizagempsa.org.br/). Such network is an initiative from which lessons can be drawn. It is also important to take into account the functioning of REGATTA, which is a networks of networks in the field of climate change.

The specific functioning of the platform will be discussed during the next capacity building event, which should revolve around a priority theme that would allow generating synergies and common interest. The participants agreed to make a broader call for the next event, since a wider representation of governments is needed.

The subjects that generated more interest among the participants and were proposed as priority for the next events are the following:

- Land planning and mapping of ecosystem services, as a tool for regulating land uses and reconciling environmental conservation with strategic productive activities
- · Articulation and harmonization of definitions and concepts
- · Valuation of the cultural heritage, considering capacities, spirituality and vulnerability
- · Non monetary valuation of the environment
- · Indicators and new metrics for valuing ecosystem services
- Governance and social resilience
- Legal frameworks and public policies for enhancing the provision of ecosystem services
- · Strategies in international negotiations in order to influence global decision making processes, with a common vision and joint forces from Latin America
- · Fiscal and tax aspects that have an incidence on ecosystem services
- · Trans-frontier ecosystem services
- Water and communities
- · Valuation of environmental and social liabilities
- · Multi-criteria analysis
- · Promotion of the rights of nature

The next capacity building event will take place in Costa Rica, and it is going to be organized by MIDEPLAN (National Planning Agency)

Tentative dates: End of January or beginning of February 2013.

The Alexander von Humboldt Institute will make consultations to check whether it could organize the following event.

#### Footnote:

Within the Framework of the "First Meeting of Ministers, Secretaries, and Representatives of Planning from Latin American and the Caribbean", and aware of achievements and challenges that in the field of planning the countries from the region have, there has been a dialogue and exchange about the importance of planning in the XXI Century. In this context, participants stressed the need to create the Latin American and Caribbean Network of Planning for Development. The Ministers and Delegates have approved the declaration of San Jose (Costa Rica), which includes the creation of the network, considering that:

I. In the social, political, economic and environmental context of the countries from the region it is necessary to count with effective development planning with a mid- and long-term vision, and that is also inclusive and participatory.

II. In order to strengthening planning in all its dimensions and to facilitate the development of the countries from Latin America and the Caribbean, it is necessary to create a space of exchange and discussion about approaches, methods and tools for adequately responding to changes in paradigms and contexts.

During the meeting, the Ministers and Delegates also agreed to promote cooperation for the development of regional strategies, inspired by national realities, in order to generate synergies between multilateral conventions and agreements, as well as to promote the exchange of experiences and to support innovative initiatives in public policy.

#### 5. Recommendations for future events

For the next meeting, the participants recommended:

- To promote the participation of at least one delegate for each of the countries from the region, as well as the participation of representatives from the different concerned sectors
- To start to organize the workshop enough time in advance, in order to guarantee a higher level of participation

- To conduct a previous work for gathering relevant information. Questions and tasks could be sent in advance to the participants, in order to prepare the workshop having the pertinent information in advance.
- To use diverse pedagogical and working methods, making emphasis on interactive and dynamic sessions, as well as in the exchange of knowledge among the participants
- To establish clear rules, in order to encourage participation and to avoid the excessive use of computers by the participants (a distracting factor)
- · To include fieldwork, in order to gain insights from the ground
- To set up working questions about methodological issues, themes and usefulness of the different approaches for the concerned stakeholders, in order to translate the exchanged knowledge into incidence in public policies
- To prepare in advance the agreement with UNEP-Nairobi, for technical assistance and financing of the workshop
- · To ask the support of UNEP-ROLAC for the coordination of the event
- · To concretize actions and commitments about the results:
  - o Conceptual framework
  - o Experiences
  - o Recommendations
- To generate a document with the results of the Workshop, which should be written in an accessible language, so actors outside the environmental field can also understand it.

# **Annex 1: List of Participants**

# Capacity Building Workshop Valuation of Ecosystem Services for Effective Public Policy in Latin America Quito-Ecuador, 13-15 August 2012

# List of Participant

List of Participant				
	Name	Organization	Responsibility	E-mail
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