



## Convention on Biological Diversity

Distr.  
GENERAL

UNEP/CBD/RW-IM-SA/1/2  
23 July 2012

ORIGINAL: ENGLISH

---

SUBREGIONAL WORKSHOP FOR SOUTH AMERICA  
ON VALUATION AND INCENTIVE MEASURES  
Santiago de Chile, 15–17 May 2012

### REPORT OF THE SUBREGIONAL WORKSHOP FOR SOUTH AMERICA ON VALUATION AND INCENTIVE MEASURES

#### I. INTRODUCTION

1. Further to requests by the Conference of the Parties at its tenth meeting, this workshop was one of a series of regional and sub-regional capacity building workshops which seeks to support countries in the sub-region to make use of the approaches, methodologies and tools suggested by (i) the global studies on the Economics of Ecosystems and Biodiversity (TEEB), and (ii) the regional initiative of the United Nations Development Programme (UNDP) called “Latin America and the Caribbean: A Biodiversity *Superpower*” and its report on the valuation of biodiversity and ecosystems by Sectorial Scenario Analysis (SSA). The workshop sought to assist countries in the sub-region in integrating the values of biodiversity into relevant national and local policies, programmes and planning processes, thereby advancing the mainstreaming goal of the Strategic Plan, and in exchanging practical experiences on incentive measures (decisions X/2 and X/44).

2. The workshop was organized by the Secretariat of the Convention on Biological Diversity (SCBD), the United Nations Development Programme (UNDP), and the United Nations Environment Programme (UNEP), through its Regional Office for Latin America and the Caribbean and its Coordinating Office on The Economics of Ecosystems and Biodiversity (TEEB) in Geneva. Financial support was provided by the European Union and the Governments of Norway and Sweden. The workshop was hosted by the Government of Chile, and took place at the premises of the International Labour Organisation (ILO) in Santiago, Chile.

3. The specific objectives of the workshop were:

(a) To provide decision-makers in the region with economic arguments for the conservation and sustainable use of biodiversity, as well as with information on state-of-the-art tools that enhance the quality of decision-making processes regarding conservation and sustainable use, including on financial tools;

(b) To provide a platform for these decision-makers to exchange views and assess the applicability, needs for adaptation, and limitations of these arguments and tools in their countries, with a view to promote common understanding;

/...

In order to minimize the environmental impacts of the Secretariat's processes, and to contribute to the Secretary-General's initiative for a C-Neutral UN, this document is printed in limited numbers. Delegates are kindly requested to bring their copies to meetings and not to request additional copies.

(c) To promote synergies and enhanced cooperation among relevant policy areas and sectors by mainstreaming biodiversity and ecosystem services;

(d) To support the revision and review or update of National Biodiversity Strategy and Action Plans (NBSAPs) in light of the new Strategic Plan for Biodiversity 2011-2020 (decision X/2, paragraph 3 (c)), in particular with regard to Aichi Targets 2 and 3, as well as other relevant Targets.

4. The workshop was attended by government-nominated officials from the Ministries of the Environment, and representatives from the finance, economic or development planning Ministries from: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, Suriname, Uruguay and Venezuela (tbc). The following national, regional and international organizations were also represented: (tbc)

5. The list of participants for the workshop can be found in annex I to the present report. The workshop was conducted in Spanish and English.

## I. OPENING AND INTRODUCTION

6. The meeting was opened by the representative of the Executive Secretary, Mr. Markus Lehmann, at 9:00 a.m. on Tuesday, 15 May 2012.

7. Mr. Lehmann welcomed the participants and explained that this workshop is one in a series of workshops requested by the Conference of the Parties to support countries in making use of the findings of the TEEB the UNDP studies with a view to better address the underlying reasons for biodiversity loss by mainstreaming biodiversity across economic sectors and society. He said that he would provide a full introduction into the objectives of the workshop after the welcome remarks, and subsequently gave the floor to the representative of the Government of Chile.

8. Mr. Leonel Sierralta of the Ministry of the Environment of Chile welcomed participants on behalf of the Government of Chile and thanked the organizers of the workshop and the ILO for providing logistical arrangements. He provided the context and rationale for the workshop from the perspective of South America by recalling that the recent dialogue seminar on scaling up finance for biodiversity, held in Quito, Ecuador from 6-9 March 2009, had a strong orientation towards the use of economic analysis and economic policy tools and encouraged the uptake of these instruments in the sub-region. He highlighted the potential role of economic valuation in changing business as usual towards more sustainable management of natural resources. He expressed the hope that the workshop would contribute towards a more comprehensive valuation of natural resources and biodiversity, and towards improved dialogue between those that conserve biodiversity and that that use biodiversity.

9. Mr. Alex Pires Carneiro of the Regional Office for Latin America and the Caribbean of the United Nations Environment Programme recalled recent work of his office in advancing the results of the TEEB studies in the region. He noted the urgent need to value nature more appropriately and to link pertinent activities to the work towards a Green Economy supported by UNEP in a number of countries. Mentioned Green Economy and its link with TEEB and its importance in the region. In closing, he expressed his hope that the workshop will allow to better appreciate the value of economic incentives for biodiversity conservation and poverty reduction, as a tool for enhanced implementation of biodiversity policies in countries.

10. Mr Raúl O’Ryan, representing the United Nations Development Programme, recalled the work of UNDP on valuation in the LAC region, and noted the tremendous economic opportunities in the region associated with valuing ecosystem services, while bearing in mind a number of threats. He underscored the importance of economic tools in biodiversity conservation and the need to start using these tools to help us manage our natural resources more effectively.

11. Ms Linda Deelen of the International Labor Office (ILO) welcomed participants at the premises of the ILO and, in the context of the topic of the workshop, provided a brief introduction ILOs work on Green Jobs. She explained that a much-needed shift to sustainable development could also create more green jobs, and that ILO work towards maximizing potential synergies with labour policies and ensuring social and health-related safeguards.

12. In introducing the background and objective of the workshop, Mr. Lehmann (SCBD) recalled the adoption of the Strategic Plan for Biodiversity 2011-2020 by the tenth meeting of the Conference of the Parties to the Convention, in October 2010, and noted that the new Strategic Plan puts particular emphasis on addressing the underlying reasons for biodiversity loss by mainstreaming biodiversity across economic sectors and society. He noted the importance of economic approaches and methodologies as mainstreaming tools and the recent contributions of the global initiative on the Economics of Ecosystems and Biodiversity (TEEB) as well as of the regional 'Biodiversity Superpower' initiative of UNDP in raising awareness on the usefulness of such economic approaches. He recalled the pertinent requests of the Conference of the Parties to support countries in making use of the findings of these studies, including in their revisions of national biodiversity strategy and action plans with a view to align these, as appropriate, to the new Strategic Plan for Biodiversity.

13. Subsequent to these opening remarks, participants introduced themselves.

## **II. VALUATION: APPROACHES, METHODOLOGIES, LIMITATIONS**

### ***a. Approaches taken by the TEEB and UNDP reports, including a critical assessment of the economic valuation of nature and its limitations***

14. Mr. Alex Pires Carneiro of UNEP ROLAC presented on the TEEB approach to the loss of biodiversity and ecosystem services. He recalled that the TEEB mandate originated at the G8+5 Environment Ministers meeting in Potsdam (2007) and eventually led to wide engagement, with over 500 contributors from across the globe under an open architecture that allowed the inclusion of various existing studies as well as linking to other processes such as the work undertaken by UNDP. He underlined the persisting challenges associated with ongoing biodiversity loss, including the over-exploitation of fisheries, continued deforestation, and destruction of coral reefs, and explained that these challengers are perpetuated because the value of biodiversity and ecosystem services is not fully reflected in markets, price signals, and policies. He highlighted the importance of the Aichi targets of the Strategic Plan for Biodiversity 2011-2020 as a global policy framework to address these challenges in a systematic manner.

15. He reviewed existing work in the region to implement the results and recommendations of the TEEB studies, making particular reference to work initiated in Brazil and Mexico, at national level, as well as to a number of activities at local level, such as in Honduras, Panama and El Salvador. Noting that Latin America is a mega diverse region but also the fact that 35% of population have live under the poverty line, he stressed the need for integrated policies that support the economic development while taking care of biodiversity and sustaining ecosystem services important for human well-being and local livelihoods, thus creating a balance between development and conservation. Economic valuation can help promote more positive incentives and eradicate harmful incentives for biodiversity conservation and sustainable use. He explained that the TEEB approach seeks to make nature visible in decision making while bearing in mind that many aspects of nature cannot be expressed in economic, and even less in monetary terms. Hence the TEEB approach is three-tiered: (i) recognize those values that cannot be expressed in economic terms; (ii) demonstrate those values that can be expressed in economic terms; and (iii) capture values by appropriate policy tools. He concluded that nature has to be considered as one of the national assets of the country and therefore be incorporated more effectively into national accounts,

regional planning, as well as through economic mechanisms such as payments for ecosystem services or certification schemes.

16. Mr. Raúl O’Ryan, the representative of the United Nations Development Programme (UNDP), presented UNDP’s work under the regional initiative called ‘Latin America and the Caribbean: A Biodiversity Superpower’. Launched in 2008, the initiative sought to assess and communicate the economic contribution of biodiversity and ecosystems services to development and equity in Latin America and the Caribbean. Its final report, released in 2010, highlighted the importance of the region’s endowment of natural capital as a source of economic growth, noting that the region has the potential to become the world leader in offering services provided by its ecosystems and biodiversity, and in return receive new benefits from conservation and sustainable management. The report recommends new policies that promise to transform the traditional model of development – one that often disregards environmental costs – into a new paradigm that recognizes the value of services provided by healthy, fully functioning ecosystems.

17. He explained that the UNDP report takes a sectorial approach, highlighting the hidden costs and hidden opportunities of ecosystem services by individual economic sectors. The report applies a sectorial scenario analysis (SSA) approach: for each sector analysis, the report develops a “Business as Usual” scenario and a “sustainable ecosystem management” scenario (SEM), and compares the two. The report demonstrates that the SEM has, for many sectors, considerable long-term advantages and provides a number of recommendations to move towards sustainable management.

18. Ms Yoliangel Rivas Orta from Venezuela presented a critical assessment of the economic valuation of nature and its limitations, based on the vision and position of the Bolivarian Republic of Venezuela. Referring to the definition of biological diversity in the CBD, she explained there is a critical difference between the use value and the exchange value of biodiversity, and stressed the need to value biodiversity and ecosystems in an holistic manner, combining social, economic, and environmental aspects.

19. She subsequently summarized a pertinent declaration of the inter-ministerial committee of ALBA countries. According to the declaration, nature cannot and should not have a price, and there is a risk that the recommendations of the TEEB study lead to the privatization and commercialization of nature, in form of critical ecosystem services, and the application of economic, market-based instruments thereon. According to the declaration, ecosystem services are of a collective nature and access to them is a right for everyone. Nature does not have a price, nor should it have one as it should not be put up for sale.

20. In the subsequent discussion, participants: (i) sought clarification on the TEEB approach to valuation including the three tiers of recognizing, demonstrating and capturing value. It was highlighted that this approach to valuation does not necessarily imply expressions of value in monetary terms, nor does it imply the subsequent use of market based instruments, as the results of valuation studies can also feed into regional planning or regulations; (ii) inquired about the policy tools associated with, or suggested by, the declaration of the ALBA ministerial committee. As examples of such policy tools, it was pointed out that Venezuela is currently developing various regulations for biodiversity conservation and sustainable use, as well as on implementing a national framework for access and benefit sharing. In addition, the national bank of Venezuela is currently preparing a study on how nature can be included in the national accounts; (iii) raised the question as to how to account costs of transitioning from business as usual to sustainable ecosystem management scenarios under the UNDP SSA approach, and what sustainability strategies to apply to support such transitioning. It was highlighted that, as the scenario analysis applies to sectors not to countries, its practical implications would be country-specific, and that it would therefore be up to national governments to develop the conceptual details and define the road to transition to sustainable ecosystem management.

21. Participants also underscored the importance of including cultural services into the analysis of tradeoffs even though they are typically difficult or, for instance in the case of spiritual values, impossible to evaluate in economic terms. In any case, it would be imperative to provide or strengthen incentives for the sustainable management of ecosystems by the local stewards, in particular indigenous and local communities.

*b. Valuation tools; experiences and approaches taken in the sub-region*

22. Ms. Joanna Kamiche (Universidad del Pacífico) presented an overview of different valuation methods, including both a theoretical synopsis of the critical assumptions underlying each method as well as their specific advantages and limitations, and a number of concrete valuation studies showcasing the application of these methods. She underscored the utility of such economic assessments for enhancing public policies, the need to tailor the choice of the valuation method or methods to the specific nature of the decision-making problem at hand; and the relevance of having good data. Practical valuation case referenced include: the contribution of ecosystem services to the production of rice in Morropón- Piura, Peru, and the economic value of the green urban areas of Pachacamac, in Lima, Peru.

23. In the subsequent discussion, participants sought, and were provided with, clarifications (i) with regard to the application of various valuation methods and their limitations and (ii) with regard to the involvement of relevant actors or stakeholders.

24. Ms Ana Luiza Champloni (Brazil) presented the state of planning and recent progress made in designing and conducting a national study on the economics of ecosystems and biodiversity in Brazil. She explained that the global launch of the TEEB studies at the tenth meeting of the Conference to the Parties, in October 2010, catalyzed interest to undertake a similar study at national level in Brazil, with a view to enable more informed decision-making. As a starting point, the global TEEB reports were translated into Portuguese and an analysis of existing national work, including a literature review, was initiated as a scoping exercise and with a view to identify critical gaps. TEEB Brazil is a joint initiative between the ministry and many other institutions; specifically, the development of TEEB Brazil for regional and local policy makers is undertaken in partnership with GIZ, and the preparation of the TEEB for business report was launched by Conservation International, with funding received from a pool of companies. The governance structure of the overall initiative and its individual components is currently being established. Interim results are planned to be launched at the eleventh meeting of the Conference of the Parties, in October 2012.

25. Participants raised a number of questions related to the expected results of the applications of the study; to the process of the scoping study; and to any lessons learned during the process so far. In responding, Ms. Champloni highlighted that the effective engagement, and subsequent coordination, of all relevant stakeholders is a challenge and takes considerable time, which would also have impacts on the work programme and in particular when final results can reasonably be expected.

26. Mr. Belko Caqueo from Chile presented on the implementation of the project of ecosystem services (ProEcoServ) in San Pedro de Atacama, in Northern Chile. He explained that this project is part of the larger ProEcoServ initiative of UNEP, with funding provided by GEF from 2012 – 2015. The project is supervised by a project steering committee composed of several ministries and municipalities. The project advisory group is open for everyone to participate.

27. The overall objective of the project is to mainstream biodiversity conservation with a view to contributing to poverty reduction and achieve sustainable development. The main economic sectors in this area are mining, tourism and subsistence agriculture, while the area is also a biodiversity hotspot. The mainstreaming strategy includes the development, with the engagement and involvement of all

stakeholders, of scenarios on future development paths in the area, based on biophysical models and economic models as well as spatial mapping and trade off matrices. Ecosystem valuation is incorporated in the assessment of tradeoffs of the project. An ecosystem service strategy has been developed for small and medium enterprises, and partnerships have been built for public-private cooperation on managing ecosystem services. Pilot studies have been undertaken on investment in ecological infrastructure.

28. In the subsequent discussions, participants focused on the impact of tourism on ecosystem services in the area, and how to promote 'ethnic tourism' while at the same time helping indigenous communities protect their natural resources and traditions. They also underscored the need for cohesion amongst stakeholders in order to help policy design.

29. Mr. Luis Germán from WWF Colombia presented on the application of spatial mapping as a tool for mainstreaming biodiversity values and for addressing biodiversity loss in the upper Putumayo basin of Colombia. In the area, biodiversity is threatened by increased agriculture, ranching, and infrastructure development and, as a response, it is planned to introduce a scheme of compensation and rewards for ecosystem services (CRES). Spatial mapping helped in identifying sites with the highest concentrations of ecosystem services and the greatest risk of loss, making them priority candidates for the introduction of the CRES scheme.

30. The InVEST tool (Integrated Valuation of Ecosystem Services and Tradeoffs) was used to quantify and mapping the six most important ecosystem services in the Upper Putumayo, namely: sediment retention, erosion control, nutrient retention, water, carbon and biodiversity. The maps also supported the selection of pilot locations for silvopastoral systems, using InVEST to identify where there is potential for enhancing ecosystem services in degraded areas and for conservation in areas with high concentration of services.

31. In the discussion, several participants acknowledged the usefulness of spatially-explicit approaches to support decision-making and, in particular, the calibration of policy tools. It was noted that such approaches should, whenever feasible, also cover cultural values and relevant social aspects. A number of participants also shared their experiences with compensation schemes, with emphasis on: (i) whom to compensate and how to reach the agreements for compensation; (ii) best timeline for the intervention; (iii) how to mobilize the interest of stakeholders, in particular of the providers of ecosystem services; (iv) achieving political and financial sustainability of this schemes.

***c. Scenario development and appraising Nature's benefits: the TEEB stepwise approach and UNDP's sectorial scenario analysis***

32. Mr. Markus Lehmann (SCBD) presented the TEEB stepwise approach to appraising nature's benefits. He explained that this approach is needs-driven, implying that appraisal methods would be chosen and adapted in accordance to the needs of decision makers. It is critical to agree on these needs at the beginning of the process. The individual steps are thus:

1. Agreement amongst all relevant stakeholders on the decision-making problem at hand – focus on relevant ecosystem services and the development of alternative scenarios.
2. Define which ecosystem services are most relevant in this context (e.g. if the agreed problem is deforestation, what are the key forest ecosystem services problems, and which ones are under threat?);
3. Define information needs and select appropriate methods. He cautioned that sophisticated methodologies are not necessarily the best ones in a specific context. Expectations need to be communicated clearly to valuation experts, and decision makers need to be clear what they want to know;

4. Undertake the actual assessment of ecosystem services, possibly, but not necessarily, by monetary valuation;
5. Look at possible policy responses and the policy instruments at hand;
6. Assess distributional impacts and implications for poverty alleviation.

33. He explained the application of the stepwise approach by providing a case example from Cameroon on promotion cacao production in the context of predominantly shade-grown cacao, an example which he said is also relevant to countries in the sub-region. In concluding, he recommended to: (i) gear the ecosystem service assessment to a particular issue/problem; (ii) connect it to potential policy responses and do not just focus on the data; (iii) pay attention to affected rights and to social impacts of ecosystem service changes, including in designing policy responses. Noting that the analysis of policy options may well involve the development of scenarios, he pointed to the linkages to UNDP's Sectorial Scenario Analysis (SSA). As valuation exercises can be constructed in various ways, policymakers need to be involved in guiding the process, understanding what is being measured and valued, and communicate assumptions and what the results can tell. Depending on the specific decision-making problem, it will frequently not be necessary to undertake a comprehensive analysis that fully captures all components of Total Economic Value – a focus on the most important issues or ecosystem services may be sufficient and more cost-effective. Furthermore, keeping values disaggregated will frequently be more useful for stakeholders, whose full and early involvement is also critical.

34. Mr Raúl O’Ryan, the representative of UNDP, presented the Sectorial Scenario Analysis (SSA) approach taken by the UNDP regional study. SSA is an extension of the more traditional cost benefit analysis moving from a monetary focus to a wider narrative based on business as usual and sustainable ecosystem management scenarios. The outcomes of the analysis are presented with key indicators enabling to identify the different pathways that can lead to these outcomes. Valuation studies can be a useful element but are just one part of a larger framework of analysis required to make a convincing case in favor of SEM, by comparing it to BAU. UNDP is currently developing a guide on how to use SSA, which will provide guidance to technical ministries with common sustainable practices as well as other stakeholders with a view to enhance decision making processes. The guide is scheduled to be published in November 2012.

35. Undertaking SSA requires taking the following steps:

1. define the policy or management problem and identify: (i) the main stakeholders; (ii) the existing policy options; (iii) relevant spatial scale; (iv) the relevant timescale; (v) existing relevant data sources;
2. construct policy and management alternatives – the process of determining what should be considered when constructing the BAU and SEM policy alternatives;
3. select criteria and indicators for decision analysis;
4. project the consequences of implementing policy alternatives;
5. making an informed policy or management recommendation.

36. After the presentations, participants were invited to work by table groups and apply the approaches presented, in simplified form, to a specific decision making problem, with reef conservation and wetland conversation as suggested cases but with the discretion being given to select another case. In line with the approaches presented, each group was invited to work on the following points or questions:

1. Discuss and agree on decision making problem and possible stylized scenarios;
2. Identify the most important ecosystem services associated with the case;
3. Which indicators would you think are the most meaningful and practicable;
4. If time allows, develop the scenarios in semi-quantitative terms.

37. Groups elaborated on the following examples: (i) oil exploitation in Ecuador in the Parque Yasuni; (ii) Hydroelectric development in a transboundary context; (iii) wetland conservation; and (iv) protection of freshwater and forest ecosystems in mining areas (Brownsberg national park in Surinam). Details of the work by the table groups are provided in annex II.

### **III. ADDRESSING INCENTIVES HARMFUL FOR BIODIVERSITY**

#### **A. *Addressing harmful incentives, including subsidies***

38. Mr. Markus Lehmann (SCBD) introduced the item by referring to Aichi target 3 of the Strategic Plan for Biodiversity 2011-2020, which commits Parties to eliminate, phase out or reform incentives which are harmful for biodiversity by 2020 and to promote positive incentive measures for the conservation and sustainable use of biodiversity, consistent and in harmony with the Convention and other international obligations, and in line with socio-economic conditions of countries. He explained that, under the Convention, harmful incentives are conceptualized as emanating from policies or practices that induce unsustainable behaviour that is harmful to biodiversity, often as unanticipated (and unintended) side effects of policies designed to attain other objectives. They can even result from some environmental policies.

39. There are many examples of harmful incentives. As regard harmful subsidies, they generally fall into two different categories types: (i) production subsidies that reduce input costs or increase revenue; and (ii) consumer subsidies leading to the below-cost pricing for the use of natural resources. Other harmful incentives can also result from some laws or regulations governing resource use, such as beneficial-use laws. He subsequently provided a number of case examples.

40. He noted that careful policy assessments are typically frequently need to identify harmful incentives as a precondition for their elimination, phase out, or reform. In undertaking pertinent assessments, a multi-criteria, holistic approach would be useful which would also include the cost-effectiveness and the social effects of harmful incentives, including subsidies (such as distributional impacts).

41. He summarized key lessons learned from the analytical work already being undertaken on the removal or reform of harmful incentives including subsidies, namely: (i) the need for strong leadership and a broad support coalition involving key stakeholders; (ii) the use of a 'whole-government' approach as a critical success factor; (iii) the identification of relevant interests and how to address their preoccupations; (iii) the design and implementation of suitable adaptation policies; (iv) Funding for policies/compensatory packages that offset negative social impacts; (v) improving transparency and enabling informed public debate; (vi) the smart use of political windows of opportunity.

42. In concluding, he underlined that the choice of policy packages for elimination, phase out and/or reform is much context-dependent, and this is therefore an important area of future work. For new policies, the use of strategic impact assessment is recommended. UNEP has developed a set of minimum criteria for new subsidies which would also be useful to consider.

43. Pointing to the pertinent reference in Aichi target 3, some participants underlined the need for the proposals on incentives, such as payments for ecosystem services, to be introduced under, and operated within an international framework, and be consistent and in harmony with the obligations derived from other international agreements, in particular with the Agreement on Agriculture (annex II) of the World Trade Organization (WTO). They explained that otherwise, such concessions, mainly those coming from



developed countries, might conceal, under environmental arguments, the preservation of agricultural subsidies, whose reduction and removal has been agreed and is currently being negotiated under the scope of the WTO, with their distorting effects on international trade.

### ***B. Addressing harmful incentives in the region***

44. Mr. Sebastian Villasante of the University of Santiago de Compostela presented on recent activities in the sub-region associated with the reform of fisheries management policies. He reviewed the current status quo of worldwide fisheries and showcased the ongoing overexploitation of fishery resources both globally and in the region, by pointing to trends in: fish production and uses, fish demand growth rate, annual growth rate of aquaculture needed to satisfy fish demand, growth rates of mean depth of catches, and growth rates of mean longevity of catches. He also described the negative impacts of overfishing on marine ecosystems more generally.

45. Deficient management regimes, in conjunction with the provision of harmful incentives, are key reasons for continued overfishing. As regards the situation in Latin America, subsidies that contribute to fishing overcapacity are still predominant in the region. He also pointed to the importance of Illegal, Unreported and Unregulated (IUU) fishing activities, noting that weak monitoring and enforcement capacity, and poor environmental governance more generally, is a major underlying factor for overfishing. Using a number of cases as concrete examples for successful reforms, such as the fisheries of Península Valdez (Argentina) or the Loco fishery in Chile, he concluded by saying that rebuilding depleted fisheries and restoring essential fish habitat and ecosystem services, and achieving sustainable ecosystem management more generally, can improve economic efficiency while enhancing the economic contribution of fisheries through the sustainable provision of food, employment, and income.

46. Participants further discussed current trends the global fish markets, noting the rising demand in particular from new middle classes in rapidly developing countries such as China. They also discussed the interaction and potential synergies between marine protected areas and their management and adjacent fisheries and their management. They noted the role of providing information to consumers as a means to move to more sustainable fisheries and, as regard designing or redirecting incentives in fisheries management, the need to devise incentives that are biologically sound and effective while being economically and socially viable, and politically feasible.

## **IV. PROMOTING POSITIVE INCENTIVE MEASURES**

47. Mr. Markus Lehmann (SCBD) gave an introduction into the item from a global perspective. Referring again to Aichi target 3 of the Strategic Plan for Biodiversity 2011-2020, he reviewed key concepts of positive incentives by providing concrete examples. With regard to indirect approaches; that is, that support activities which are not designed for conserving biodiversity but have the effect of contributing towards this, he pointed to recent trends in bio-trade and eco-tourism, and reviewed the necessary institutional arrangements for such initiatives. He discussed the role of markets in positive incentives including their opportunities and limitations, referring to current trends in green markets and the global carbon market. As regards direct approaches, such as payments for ecosystem services, he discussed their linkages to poverty alleviation and reviewed critical lessons learned such as addressing insecure property rights, and the on-going need for effective monitoring and enforcement. He concluded by providing possible avenues to improve existing and to introducing new incentives.

Participants: (i) discussed whether and to what extent eco-tourism can provide a contribution towards biodiversity conservation and sustainable use; (ii) noted the opportunities associated with biotrade but pointed also to the difficulties of small and medium enterprises in getting certified, due to limited their limited financial and other capacity, and the on-going need to provide capacity building; (iii) stressed that

positive incentives need to be designed bottom-up and being socially integrated. Relevant knowledge needs to be shared with the communities and they need to be involved from the earliest phases. Pointing to a number of recent success stories in countries in the region, this was identified as a critical success factor.

**A. *Payments for Ecosystem Services (PES)***

48. Ms. Ana Cristina Morocho from Ecuador presented recent experiences and lessons learned in implementing its programme providing positive incentives for the conservation of native forests (Proyecto Socio Bosque de Conservación). Established in 2008, this voluntary programme provides incentives to indigenous and local communities or individual forest owners in exchange for a twenty-year commitment towards agreed forest conservation activities. The programme targets priority forest areas, based on, inter alia, deforestation rates; importance for the generation of ecosystem services in particular hydrological services; biodiversity habitat; contribution to climate change mitigation; and poverty levels. Since its establishment in 2008, the programme covered more than 882,000 hectares and benefitted more than 90,000 participants, with total receipts of over 14 Million dollars. Monitoring outputs is undertaken by annual remote sensing complementing by field visits.

49. With regard to difficulties encountered and lessons learned, she pointed to Ecuador's cultural diversity and noted that is sometimes difficult to explain to communities how the incentive mechanism works. In addition, achieving financial sustainability is a challenge, with private sector funding being one option which is currently being explored.

50. In the discussion, participants sought, and received, clarification on: (i) the basis for calculating payments is per acreage of land ownership; (ii) assistance is provided to local communities to self-organize and assess their opportunities, in form of technical training by the project staff coming from different disciplines, including on accounting, and in form of model calculations that showcases the benefits of conserving ecosystem services. Individual owners need to show their interest and commitment. In a similar programme in Brazil called green forest, communities are encouraged to use best practices; (iii) role of the legal framework, including for purposes of funding sustainability: it is currently a project of the environment ministry but work towards the institutionalisation of the programme is under way.

**B. *Biotrade: experiences and approaches in the region***

51. Mr. Jaime Cárdenas from the GEF project on Biocomercio Andino (GEF-CAF) presented the project's experiences in harnessing market forces for biodiversity conservation. He reviewed the definition of biotrade and its relation with CBD principles, making reference to the Biotrade Principles developed by the UNCTAD Biotrade Initiative. He noted the current global trends in growing demand for natural products and referred to three good practice examples in more detail: (i) community association Yarumo Blanco in Colombia: community-based eco-tourism in protected areas; (ii) Chankuap Foundation in Ecuador: biotrade products including food, phyto-medicines and natural cosmetics; (iii) Villa Andina in Peru: biotrade products including aguaymanto, quinoa, native potatoes, lucuma, maca and yacon.

52. He subsequently provided an overview of the GEF-CAF project on Andean BioTrade including its objective, strategy, governance, expected outcomes, components, impacts and beneficiaries. Intermediate results of the project so far include: (i) strengthened policies and improved market access; (ii) local entrepreneurial capabilities built and financial resources leveraged; (iii) information disseminated on biotrade products and markets, (iv) pilot projects established.

53. In the discussion, participants acknowledged the usefulness of biotrade as a tool for linking biodiversity conservation with local livelihood development, and exchanged experiences with similar programmes in their countries, with specific examples provided from Peru and Brazil. Potential synergies were noted with regard to other initiatives such as on fair trade, organic production, and associated certification schemes. The importance of protecting traditional knowledge was highlighted, for instance in the context of the commercialization of native seeds. As regards the enabling environment for biotrade, it was pointed out that trade regulations, for instance related to health, sometimes create barriers to biotrade activities, the Novel Food regulation of the European Union being quoted as one concrete example. Opportunities for further support biotrade under the fifth replenishment of the GEF were also highlighted.

#### **IV. ECONOMIC APPROACHES AS A TOOL FOR BIODIVERSITY MAINSTREAMING: THE WAY AHEAD**

54. Mr. Markus Lehmann (SCBD) presented how the TEEB and UNDP work, as well as work on valuation and incentive measures more generally, is integrated in the Strategic Plan for Biodiversity 2011-2020, making particular reference to Aichi targets two and three, and mapped out a number of options of how incorporate strengthened work on these issues in revised national biodiversity strategy and action plans (NBSAPs). He recalled that COP-10 urged Parties to review and, as appropriate, revise and update, NBSAPs to reflect the new Strategic Plan and its Aichi targets. He also recalled that, in preparation for COP-10, an analysis had been undertaken by the UN University which highlighted that many NBSAPs did not adequately address the underlying causes of biodiversity loss, and that the new Strategic Plan put accordingly more emphasis on mainstreaming biodiversity across economic sectors and society. Recognizing that the TEEB and UNDP approaches are important tools for mainstreaming biodiversity and integrating values into relevant strategies and national policy processes, he presented, in concluding, a number of options on how to integrate pertinent activities into revised NBSAPs.

55. Further to this presentation, participants discussed, in table groups, options on how to ‘translate’ Aichi targets two and three into national policies and, as a first step, into activities to be included in national strategy and action plans. The results of this group work is summarized in Annex III.

56. A survey questionnaire was distributed to all participants for completion with a view to enable the UNEP TEEB office to guide national plans and TEEB/ecosystem valuation processes via the TEEB network of experts, and help source funding where possible. A summary analysis of the survey is provided in Annex IV.

57. Ms. Chloe Hill of the TEEB coordinating office of UNEP presented the current programme and associated activities to support countries in making use of the results of the global studies on the Economics of Ecosystems and Biodiversity (“TEEB Phase III”). She explained that TEEB Phase III has four operative components: (i) strengthening of the TEEB network of experts; (ii) promotion of outreach and communications; (iii) supporting the development of sectoral studies; (iv) supporting and facilitating TEEB implementation at the national level.

58. With regard to national TEEB studies, she noted that some countries have already started this process, and that interest has been shown by others, and that support would be provided to: facilitate design and implementation of TEEB projects at the national and local levels; (ii) connect projects to each other and/or to funding options; (iii) support new initiatives in the business world; (iv) assist in the translation of the reports into policy. The TEEB office in Geneva will provide guidance via the TEEB network of experts in order to build national, regional and local government capacity and to support the production of national-level economic assessments, namely:

- For developed countries UNEP will facilitate by putting relevant experts in contact with each other, but will not actively participate in the development of national studies nor provide funding;
- For developing countries, UNEP will take a more active and participatory role, possibly including the more direct involvement in country level studies and guidance for sourcing funding support.

59. Mr. Alex Pires Carneiro gave an overview of pertinent activities by UNEP ROLAC to support countries in this regard.

60. A roundtable was held to enable participants to discuss these plans in more detail including undertaking pertinent studies in their countries, and to identify pertinent challenges and constraints:

61. Participants from Colombia, Brazil, Chile, Peru, and Uruguay indicated that they already have concrete activities under way to undertake valuation studies and other pertinent work, including national TEEB studies (Brazil); participation in the Proecoserv initiative (Chile); participation in the WAVES partnership (Colombia); and undertaking valuation work (Peru and Uruguay).

62. Mr Leroy Egerton and Ms. Reshma Jankipersad from the Foundation for Forest Management and Production Control of Suriname gave an overview of the forestry sector in Suriname and explained that the need is increasingly recognized to design and implement more sustainable forest management practices. They pointed to such practices already implemented, including reduced impact logging, and noted the increasing interest to upscale the commercialization of certified timber in order to generate additional incentives for sustainable forestry. Referring to the fact that there are currently just two certified concessions in the country, they pointed to pertinent challenges in particular the difficulty to stay competitive.

63. Mr. Daniel Alvarez from Chile pointed to the need and opportunity to use pertinent processes to achieve enhanced cooperation among different ministries, in particular between the environment ministry and line ministries. In this context, participants from Peru: (i) pointed to the need to specific information at local and sub-national level on how to implement TEEB-related activities; (ii) noted the need to provide long-term training courses on economic valuation, making reference as an example to the course offered by the University of the Pacific; (iii) pointed to capacity limitations in applying guidelines for sustainable management practices, and associated enforcement challenges. The participants from Uruguay pointed to the need to reach out to relevant stakeholders and provide capacity building.

## **V. EVALUATION AND CLOSURE OF THE WORKSHOP**

64. Participants were invited to complete an evaluation questionnaire with a view to collect feedback and to inform, and improve, the planning of future workshops. A synopsis of the completed questionnaires is provided in annex V. A number of participants provided concluding remarks highlighting the usefulness of the topics covered for revising and strengthening NBSAPs with a view to achieve long-term sustainability.

65. After the usual exchange of courtesies, the workshop was officially closed at 6:30 P. M. on Thursday, 17 May, 2012.

## ANNEX I

### LIST OF PARTICIPANTS

#### **CBD Parties**

##### **Argentina**

1. Ms. Jessica Noelia DIAZ  
Secretary of Embassy  
Directorate-General for Environmental Affairs  
Ministry of Foreign Affairs and Worship  
Esmeralda 1212, 14 Floor  
Buenos Aires  
Argentina  
Tel.: +54 11 4819 7410  
Fax: +54 11 4819 7413  
E-Mail: [jnz@mrecic.gov.ar](mailto:jnz@mrecic.gov.ar)
2. Mr. Nazareno Cruz MONTANI CAZABAT  
Secretary of Embassy  
Directorate of Multilateral Economic Negotiations  
Ministry of Foreign Affairs and Worship  
Esmeralda 1212, 14th Floor  
Buenos Aires  
Argentina  
E-Mail: [ncm@mrecic.gov.ar](mailto:ncm@mrecic.gov.ar)

##### **Bolivia (Plurinational State of)**

3. Mr. Jaime HUANCA MENDOZA  
Irrigation Programs and Projects Professional  
Viceministry of Water Resources and Irrigation  
Ministerio de Medio Ambiente y Agua  
Calle Capitán Castrillo N 434  
La Paz  
Bolivia (Plurinational State of)  
E-Mail: [jaime.huanca@riegobolivia.org](mailto:jaime.huanca@riegobolivia.org)
4. Mr. Roberto Ingemar SALVATIERRA ZAPATA  
Director General de Planificación  
Ministerio de Medio Ambiente y Agua  
Calle Capitán Castrillo N 434  
La Paz  
Bolivia (Plurinational State of)  
E-Mail: [rsalvatierra8@gmail.com](mailto:rsalvatierra8@gmail.com)

##### **Brazil**

5. Ms. Ana Luiza OLIVEIRA CHAMPLONI  
Secretary, Economic Policy  
Ministry of Finance  
Brasília  
Brazil  
Tel.: +55 61 34 12 23 04  
E-Mail: [ana.champloni@fazenda.gov.br](mailto:ana.champloni@fazenda.gov.br), [analuizaoc@gmail.com](mailto:analuizaoc@gmail.com)

**Chile**

6. Ms. Pamela FRENK  
Ministerio de Desarrollo Social  
Santiago  
Chile  
E-Mail: [pfrenk@desarrollosocial.gob.cl](mailto:pfrenk@desarrollosocial.gob.cl)
7. Maria Isabel KORNFELD  
Ministerio de Desarrollo Social  
Santiago  
Chile  
E-Mail: [mkornfeld@desarrollosocial.gob.cl](mailto:mkornfeld@desarrollosocial.gob.cl)
8. Mr. Daniel ALVAREZ  
Coordinador del Plan de Accion Nacional Biodiversidad y Cambio Climatico  
NBSAP Climate Change  
Ministerio de Medio Ambiente  
Santiago  
Chile  
Tel.: 56 2 240 56 35  
Fax: 56 2 241 18 88  
E-Mail: [dalvarezl@mma.gob.cl](mailto:dalvarezl@mma.gob.cl)
9. Ms. Mariela AREVALO  
Jefe  
Departamento de Asuntos Hidricos  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [marevalo@mma.gob.cl](mailto:marevalo@mma.gob.cl)
10. Ms. Maria BELEN SEPULVEDA  
Division de Estudios - Depto. Economia Ambiental  
Ministerio de Medio Ambiente  
Santiago  
Chile  
E-Mail: [msepulveda@mma.gob.cl](mailto:msepulveda@mma.gob.cl)
11. Mr. Belko CAQUEO MOLINA  
Ministerio de Medio Ambiente  
Santiago  
Chile  
E-Mail: [bcaqueo@mma.gob.cl](mailto:bcaqueo@mma.gob.cl)
12. Cristobal DE LA MAZA  
Jefe  
Division de Estudios  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [cdelamaza@mma.gob.cl](mailto:cdelamaza@mma.gob.cl)

**Chile**

13. Ms. Javiera FERREYRA  
Departamento de Areas Protegidas  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [jferreyra@mma.gob.cl](mailto:jferreyra@mma.gob.cl)
14. Ms. Alejandra FIGUEROA  
Departamento de Asuntos Hidricos  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [afigueroa@mma.gob.cl](mailto:afigueroa@mma.gob.cl)
15. Mr. Rodrigo GUIJON  
Jefe  
Departamento de Areas Protegidas  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [rguijon@mma.gob.cl](mailto:rguijon@mma.gob.cl), [mstutzin@mma.gob.cl](mailto:mstutzin@mma.gob.cl)
16. Mr. Hernan LATUZ  
Departamento de Asuntos Hidricos  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [hlatuz@mma.gob.cl](mailto:hlatuz@mma.gob.cl)
17. Ms. Marcela PEREZ  
Division de Recursos Naturales Renovables y Biodiversidad  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [mperez@mma.gob.cl](mailto:mperez@mma.gob.cl)
18. Ms. Beatriz Ramirez Miranda  
Departamento de Areas Protegidas  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [betyolivia@gmail.com](mailto:betyolivia@gmail.com), [bramirez@mma.gob.cl](mailto:bramirez@mma.gob.cl)
19. Mr. Leonel SIERRALTA  
Jefe  
División de Recursos Naturales Renovables y Biodiversidad  
Ministerio de Medio Ambiente  
Teatinos 258, Piso 6  
Santiago  
Chile  
E-Mail: [lsierralta@mma.gob.cl](mailto:lsierralta@mma.gob.cl)

## **Colombia**

20. Mr. Alexander RINCON RUIZ  
Research Associate, Biological Resources  
Instituto Alexander von Humboldt  
Diagonal 27 N-15-01  
Bogotá  
Colombia  
Tel.: +57 1 3202767 Ext. 5103  
E-Mail: [arincon@humboldt.org.co](mailto:arincon@humboldt.org.co)  
Web: [www.humboldt.org.co](http://www.humboldt.org.co)

## **Ecuador**

21. Mr. Diego MOGOLLON  
Directorate of Public Policy  
National Secretariat of Planning and Development  
Quito  
Ecuador  
Tel.: +593 2 3978900 ext: 2725  
E-Mail: [dmogollon@senplades.gob.ec](mailto:dmogollon@senplades.gob.ec)
22. Ms. Ana Cristina MOROCHO GUAYASAMIN  
Forest Partner Programme  
Ministerio de Medio Ambiente  
Calle Luis Cordero y Av. 6 de Diciembre  
Edificio Canopus Plaza  
Quito  
Ecuador  
E-Mail: [amorcho@ambiente.gob.ec](mailto:amorcho@ambiente.gob.ec)

## **Peru**

23. Ms. Monica MUNOZ NAJAR GONZALES  
Agricultural and Environmental Sector, Investment Policy General Direction  
Ministry of Economics and Finance  
Lima  
Peru  
Tel.: +51 1 311 5930 ext. 3748  
E-Mail: [mmunoznajar@mef.gob.pe](mailto:mmunoznajar@mef.gob.pe)
24. Ms. Yang Kathia SOTO TORRES  
Project Formulation Specialist  
Directorate of Biological Diversity  
Ministry of Environment of Peru  
Ave. Javier Prado Oeste 1440  
San Isidro  
Lima 41  
Peru  
Tel.: +51 6116 000 ext.1346  
E-Mail: [ysotot@minam.gob.pe](mailto:ysotot@minam.gob.pe), [kathiasoto@gmail.com](mailto:kathiasoto@gmail.com)



## **Suriname**

25. Mr. Leroy EGERTON  
Junior Officer, Forestry Economic Services  
Foundation for Forest Management and Production Control  
Ministry of Spatial Planning, Land and Forest Management  
Paramaribo  
Suriname  
E-Mail: [egerton-sbb@hotmail.com](mailto:egerton-sbb@hotmail.com)
26. Ms. Reshma JANKIPERSAD  
Senior Research and Development Officer  
Foundation for Forest Management and Production Control  
Ministry of Spatial Planning, Land and Forest Management  
Paramaribo  
Suriname  
E-Mail: [nwjanki@yahoo.com](mailto:nwjanki@yahoo.com)

## **Uruguay**

27. Mr. Alvaro SALAZAR  
Economist, Member of the Institutional Project to Strengthen the National System on Protected Areas  
Faculty of Economic Sciences  
Montevideo  
Uruguay  
E-Mail: [salazar.arguinarena@gmail.com](mailto:salazar.arguinarena@gmail.com), [alvaro@iecon.ccee.edu.uy](mailto:alvaro@iecon.ccee.edu.uy)
28. Mr. Pablo Alejandro URRUTI GANDUGLIA  
Division of Biodiversity and Protected Areas, National Directorate of the Environment  
Ministry of Housing, Territorial Planning and Environment  
Galicia 1133  
Montevideo  
Uruguay  
E-Mail: [pablo.urruti@dinama.gub.uy](mailto:pablo.urruti@dinama.gub.uy), [purruti@gmail.com](mailto:purruti@gmail.com)

## **Venezuela (Bolivarian Republic of)**

29. Ms. Yoliangel RIVAS ORTA  
Third Secretary  
Office of Integration and Multilateral Affairs  
Ministry of People's Power for Foreign Affairs  
Tel.: +58 212 806 4312/4364  
Fax: +58 212 806 4306  
E-Mail: [yrivasorta@gmail.com](mailto:yrivasorta@gmail.com), [yoliangel.rivas414@mppre.gob.ve](mailto:yoliangel.rivas414@mppre.gob.ve)

## United Nations and Specialized Agencies

### International Labour Organization

30. Ms. Linda DEELEN  
International Labour Organization  
Santiago  
Chile  
E-Mail: [deelen@ilo.org](mailto:deelen@ilo.org)
31. Ms. Melissa VON DER FORST  
International Labour Organization  
Santiago  
Chile  
E-Mail: [vonderforst@oitchile.cl](mailto:vonderforst@oitchile.cl)

### UNEP-GEF-CAF Project

32. Mr. Jaime CARDENAS PEREZ  
Regional Coordinator  
UNEP-GEF-CAF Project  
Lima  
Peru  
Tel.: +511 437 8401- 99 797 2436  
E-Mail: [jaimecardenas@infonegocio.net.pe](mailto:jaimecardenas@infonegocio.net.pe)

### United Nations Development Programme - Chile

33. Mr. Raul O'RYAN  
United Nations Development Programme - Chile  
Dag Hammarskjöld 3241  
Vitacura  
Santiago  
Chile  
Tel.: +562 6541012  
E-Mail: [raul.oryan@undp.org](mailto:raul.oryan@undp.org)  
Web: [www.pnud.cl](http://www.pnud.cl)

### United Nations Environment Programme (UNEP)

34. Ms. Chloe HILL  
Economics and Trade Branch  
Division of Technology, Industry and Economics, TEEB Office  
United Nations Environment Programme  
15, Chemin des Anémones  
Châtelaine  
Geneva 10 CH-1219  
Switzerland  
Tel.: 41-22-91-78-243  
Fax: 41-22-91-78-076  
E-Mail: [chloe.HILL@unep.org](mailto:chloe.HILL@unep.org), [chloe.HILL@unep.ch](mailto:chloe.HILL@unep.ch)  
Web: <http://www.unep.ch>

## **United Nations Environment Programme (UNEP)**

35. Mr. Alex PIRES CARNEIRO  
Programme Officer / MEA Focal Point for Latin America and the Caribbean  
United Nations Environment Programme  
UNEP Regional Office for Latin America and the Caribbean  
Clayton, Ciudad del Saber  
Panama City  
Panama  
Tel.: 507 305 3119  
Fax: 507 305 3105  
E-Mail: [alex.pires@unep.org](mailto:alex.pires@unep.org)., [alex.pires@mail.pnuma.org](mailto:alex.pires@mail.pnuma.org)

## **Inter-Governmental Organizations**

### **Asociacion Latinoamericana de Integracion**

36. Dr. Christian LEROUX  
Departamento de Acuerdos y Negociaciones  
Asociacion Latinoamericana de Integracion  
Cebollati 1461  
C.P. 11200  
Montevideo  
Uruguay  
Tel.: +598 2 410 1121 ext. 2246  
E-Mail: [Cleroux@aladi.org](mailto:Cleroux@aladi.org)

## **Non-Governmental Organizations**

### **WWF Colombia**

37. Mr. Louis German NARANJO  
WWF Colombia  
Cali  
Colombia  
Tel.: +571 558 2577  
E-Mail: [lgnaranjo@wwf.org.co](mailto:lgnaranjo@wwf.org.co)

## Indigenous and Local Community Organization

### Asociacion Indigena Wilkunche

38. Mr. Juan Antonio CORREA CALFIN  
Presidente, Corporación para el Desarrollo Intercultural Social Indígena  
Gestor Intercultural  
Asociacion Indigena Wilkunche  
Santiago  
Chile  
Tel.: + 56 9 92695730  
E-Mail: [juanantoniocorreacalfin@gmail.com](mailto:juanantoniocorreacalfin@gmail.com)

### Asociacion Mapuche Kaxawain

39. Ms. Maria Cristina HUENCHULEO VARGAS  
Asociacion Mapuche Kaxawain  
Santiago  
Chile  
Tel.: +56 9 799 25 49  
E-Mail: [kalfhumalen2@hotmail.com](mailto:kalfhumalen2@hotmail.com), [mhuenchuleo@parquemet.cl](mailto:mhuenchuleo@parquemet.cl)

## Education/University

### The Royal Swedish Academy of Sciences

40. Mr. Sebastian VILLASANTE LARRAMENDI  
The Beijer Institute of Ecological Economics  
The Royal Swedish Academy of Sciences  
P.O. Box 50005  
Stockholm SE-104 05  
Sweden  
Tel.: + 34 981 56 31 00. Ext. 11649/24437  
Fax: + 34 981 55 99 65  
E-Mail: [sebastian.villasante@beijer.kva.se](mailto:sebastian.villasante@beijer.kva.se), [sebastian.villasante@usc.es](mailto:sebastian.villasante@usc.es)

### Universidad del Pacifico

41. Ms. Joanna Noelia KAMICHE ZEGARRA  
Professor  
Universidad del Pacifico  
Lima  
Peru  
Tel.: (511) 2190100 ext. 2337 / 2141  
E-Mail: [kamiche\\_in@up.edu.pe](mailto:kamiche_in@up.edu.pe)

## ANNEX II

*Summary of group work: TEEB stepwise approach and SSA*Group 1

**El Problema:** Explotación Petrolera en Parque Nacional Yasuni (Ecuador)

**Características:**

- Bosque húmedo tropical amazónico
- 655sp per ha (árboles)
- 593 especies de aves
- 150 anfibios
- 2 pueblos no contactados
- 646 millones de barriles de petróleo (USD\$9.1 millón)

**Escenarios**

1. Status Quo
2. explotación petrolera en parque
3. explotación petrolera remota (high tech)

**Servicios Ecosistémicos**

- Fijación de carbono
- Provisión de agua
- Hábitats – patrimonio natural
- Provisión alimentos
- Paisaje - turismo

Servicios Ecosistémicos	Status quo	Explotación	High tech
Ingreso Petróleo	0	+++	+/-
Fijación de carbono	+++	0/(-)	++/-
Producción de agua	+++	+	++
Hábitats	+++	0	++
Turismo	+++	0	++
Provisión alimentos	+++	0	++

Nota: para este análisis no se considero: 1) valores culturales del bosque y 2) cambio climático

Grupo 2 (Surinam lead hence in English)

**The Problem:** Protection of Fresh Water Forest Ecosystems in Mining Areas

**Characteristics:**

- illegal mining in Browsberg Nature park (Surinam)
- 12,200 ha Forest
- Local communities living near (7) the park
- Tourism based economy
- Mine workers both local and Brazilians
- Mercury pollution of water bodies
- Dynamite blasting
- Illegal hunting in park by gold miners

**Possible Measures:**

1. expel illegal miners
2. registration of mining workers
3. promoting environmentally friendly materials (cyanide vs mercury)
4. education and technical assistance by government and other stakeholders
5. water treatment

**Ecosystem Services:**

- Fresh water provision
- Carbon sequestration
- Tourism resource/recreation
- Wildlife habitat
- Regulating soil erosion/degradation
- Cultural services
- Educational value
- Research

**Assessment:**

1. BAU

Net Add Income: Mining	+++
Net Add Income: Tourism	-
Net Add Income: Education	-
Carbon sequestration	-
Maintenance of BD in NP	-

2. New mining regulation and methods (Cyanide use etc)

Net Add Income: Mining	+
Net Add Income: Tourism	++
Net Add Income: Education	++
Carbon sequestration	+
Maintenance of BD in NP	++

**Indicators:**

- Water quality (mercury and cyanide contents, conductivity)
- Sp population numbers
- Number of small-scale gold miners in NP (park ranger control)
- Tourist visitation/researchers (attraction of sustainable activities in NP)
- Forest cover (remote sensing)

Grupo 3

**El Problema:** Conservación de Humedal (Batuco) en una región metropolitana

**Características:**

- 14.778 ha
- 20% aves de la fauna de Chile
- Expansión urbana
- Contaminación con desechos domésticos e industriales
- Utilización ilegal del H<sub>2</sub>O
- Producción de alimentos

**Escenarios**

1. Sin conversión (Humedal 100% protegido)
2. conversión intensiva (al urbana y agrícola)
3. escenario intermedio (actividades regulados)

**Servicios Ecosistémicos**

- Recarga de acuíferos
- Hábitats para flora y fauna
- Regulación del clima local
- Realización de actividades turísticas
- Uso de recursos pequeños

Servicios Ecosistémicos	Sin conversión	Conversión intensiva	Escenario intermedio
Regulación del clima local	+++	+	++

Recarga de acuíferos	+++	+	+++
Ecoturismo	+++	+	++
Hábitat de 70 especies de aves	+++	0	++
Actividad agrícola y urbana	0	+++	+

### Indicadores adicionales

- Indicador de biodiversidad (no. De especies, diversidad de hábitat)
- Indicador de densidad
- Áreas cultivadas (%)
- Indicador de balance hídrico

### Grupo 4

**El Problema:** Construcción de una hidroeléctrica en una frontera - en el país A para brindar energía al país B que implica la inundación de 378 km<sup>2</sup>.

#### 1. Impactos Negativos

Inundación de 378 km<sup>2</sup>.

- ✓ Afectación de la biodiversidad: No se sabe las especies que se perderían porque no hay un inventario (Incertidumbre).
- ✓ Afectación de las poblaciones indígenas.
- ✓ Inutilización de áreas de extracción minera: pérdida económica.
- ✓ Deforestación de 300000 hectáreas de bosque primario: menor secuestro de carbono.
- ✓ Afectación de la investigación que se desarrolla en la zona así como el turismo.
- ✓ Impactos en los ecosistemas acuáticos aguas arriba y aguas abajo.
- ✓ Cambio en las condiciones climáticas de la zona:

#### 2. Impactos Positivos:

- ✓ Crecimiento económico de la zona: reducción del precio de la energía.
- ✓ Generación de puestos de trabajo.
- ✓ Exportación de energía (sin incertidumbre): inversión durante 5 años y el impuesto a la renta durante la operación del proyecto, ya que el país beneficiario comprará 80% de la energía producida.

#### **Problemas:**

- ✓ Se requiere una valoración económica de los impactos positivos y negativos del proyecto.
- ✓ Los costos sociales los asume el país A pero la mayoría de beneficios los recibe el país B.

#### **Escenarios:**

- a) E1: Construir la hidroeléctrica, pero condicionado a acuerdos de administración.



b) E2: **No construir**

c) E3: Generar un monto de energía similar pero con alternativas con menor impacto en los ecosistemas.

### Servicios ambientales

Servicios de regulación: secuestro de carbono / clima / regulación hídrico.

Servicios de recreación: investigación / paisajes.

Servicios de soporte: afectación de comunidades indígenas.

Negativos	17	3	5
Positivos	8	3	6
cero	0	0	0

	E1	E2	E3
✓ Afectación de la biodiversidad: (especies ¿?).	--	0	-
✓ Afectación de las poblaciones indígenas.	---	0	0
✓ Potencial minero	--	+	-
✓ Deforestación de 300 000 hectáreas de bosque primario: menor secuestro de carbono.	---	0	-
✓ Afectación de la investigación que se desarrolla en la zona así como el turismo.	--	++	0
✓ Impactos en los ecosistemas acuáticos aguas arriba y aguas abajo.	---	0	-
✓ Cambio en las condiciones climáticas de la zona.	--	0	-
✓ Reducción del precio de la energía.	+++	0	++/+
✓ Generación de puestos de trabajo.	++	0	+
✓ Exportación de energía (sin incertidumbre): ingresos fiscales.	+++	0	+ / ++
✓ Afectación del Crecimiento económico	+++	---	+++

### Indicadores:

- ✓ Económicos: cantidad de provisión de energía (matriz energética) / ingresos fiscales.
- ✓ Ambientales: disminución de secuestro de carbono (ton) / potencial pérdida de especies endémicas (número).
- ✓ Sociales: Número de comunidades indígenas y poblaciones afectadas (desplazadas) / Número de empleados / no creados.

### ANNEX III

*Summary of group work: How to 'translate' Aichi targets two and three into national policies and activities to be included in national strategies and action plans.*

#### Grupo 1: Colombia –Argentina-Chile

**Tema:** Importancia de la Educación par la Concientización

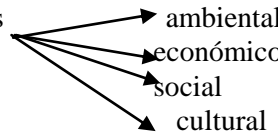
#### 1. Valoración

- Es necesario una mayor conceptualización
  - Es importante incluir los siguientes aspectos:
    - Sociales
    - Culturales
    - Institucionales
    - Ecológicos
- } Importancia del contexto:  
Local  
Regional  
Nacional

#### 2. Incentivos negativos

- Eliminación de Exención tributaria a empresas forestales, pesqueras, y a todas aquellas empresas que no consideran el medio ambiente.
- Regulación de sobreexplotación de recursos naturales:
  - Pesqueros - Avanzar en disciplinas a nivel multilateral (OMC) para que los países que aplican subvenciones a la pesca, las eliminen para evitar la sobreexplotación
  - Forestales;
  - Ganaderos

#### 3. Incentivos positivos

- Fomentan la producción limpia
- Mejorar la educación para la conservación y la utilización sostenible
- Seguridad y uso sostenible de los recursos 
- Coherencia en las iniciativas de los Gobiernos sobre desarrollo sostenible y los tratados de Derechos Humanos Suscritos y los de Biodiversidad (RAMSAR, CITES, CDB)

#### Grupo 2: Bolivia-Venezuela-Ecuador

**Tema:** Los planes, políticas o estrategias deben nacer de un diagnóstico de abajo hacia arriba, considerando procesos participativos, con los actores de biodiversidad.

#### 1. Valoración

Ley de Derechos de la Madre Tierra, Derechos Ambientales, Derechos de la Naturaleza

- Generar capacidades internas e institucionales

- Incluir en los planes de acción las estrategias de valoración
- Generar empoderamiento de actores
- Vinculación intersectorial

## 2. Incentivos negativos

- Subsidios monocultivos
- concepción función social y económica de la tierra
- reforestación con fines comerciales

## 3. Incentivos positivos

- Incentivos para la protección de fuentes hídricas, bosques (conservación):
- Incentivos desarrollo alternativos de ecoturismo
- Incentivos para el desarrollo de actividades productivas sustentables bajo planes integrales de manejo

### Grupo 3: Uruguay / Brasil / Perú

#### 1. Valoración

Plan / POI / EST	Corto plazo 1.b	Próximos plazos 1.c
Censo agrop	Si	Inclusión
Plan conservación recursos hidrológicos	Si	Inclusión
Proyecto de ley de Ordenamiento Territorial	Si	Inclusión
Ley Forestal Nacional	Si	Inclusión
Estrategia Nacional de Biodiversidad	Si	Inclusión
Ley de Conservación de Suelos	Si	Inclusión
Ley de Ordenamiento Territorial / Desarrollo Sostenible	Si (imp)	Implementación

## 2. Incentivos negativos

- Promoción uso etanol en combustibles
- Sesgo de los programas de los institutos de investigación agropecuaria
- Régimen zona franca para la industria que utiliza madera como materia prima
- Precio mínimo para cereales oleaginosos
- Promoción ecológica de acuicultura en zonas protegidas
- Promoción de la minería e hidroeléctrica
- Megaproyectos de infraestructura

## 3. Incentivos positivos

- Agricultura orgánica
- Áreas protegidas públicas y privadas
- Biocomercio
- Econegocios

#### ANNEX IV

##### *Synopsis on completed surveys on TEEB national plans and projects*

- Out of the 18 surveys completed, 5 countries had already initiated TEEB related activities (some countries initiating more than two TEEB related projects), specifically: Brasil, Peru, Uruguay, Colombia and Chile.
- These TEEB related activities include: a valuation study of the tourism and water sectors in Peru, valuation studies in certain protected areas in Uruguay and valuation studies of ecosystem services in certain protected areas in Chile.
- All projects have requested assistance from the UNEP-TEEB office in Geneva for technical support and capacity building as well as being connected with experts to help with the elaboration of TEEB studies.
- Among countries that did not have TEEB plans or projects underway (or any that the participants were aware of), lack of funding, capacity or skills in country to conduct a TEEB like study were identified as main constraints, together with limited understanding of what is needed to do a TEEB national study.
- However, many of these countries that currently do not have TEEB plans or projects would be interested in conducting one in the future.

## ANNEX V

### *Synopsis of completed workshop evaluation questionnaires*

- 15 out of the 16 participants that completed the questionnaires stated that the course had met their expectations, with one participant stating that they were still unsure about TEEB concepts and what to do next.
- The level of knowledge of TEEB before the workshop was medium to high.
- The most useful parts of the course identified were: the TEEB approach, exchange of regional experiences including project specific experiences in various countries in South America, valuation methods, positive and negative incentives, and practical exercises to consolidate the learning experience.
- Participants gained a deeper insight into the steps/process/tools required for conducting and/or commissioning a TEEB study, particularly through the exchange of regional and indeed national experiences, and now have a stronger understanding of the importance of capturing ecosystem service values for improved decision making processes.
- A need was noted to explain more clearly the real life application of valuation methodologies. Participants would like to receive more training on not only the valuation tools themselves but also how to apply them in real life contexts, perhaps with more ample demonstrations of their use in cases from the region.
- They would also like to receive more in depth training on perverse and positive incentives, the institutional aspects of TEEB, biotrade and the use of software tools such as InVest.
- Suggestions for improvements included: to use case studies that are connected with specific methodologies (see above), provide participants with more detailed material/handouts before the course starts, allocate more time for the workshop itself so some topics can be expanded on, to have more of a mix of stakeholders in the workshop (not just representatives from governments etc) to allow for further exchange of ideas and perspectives, to have more explanation on the scientific terminologies used.
- The general ratings of the workshop were good to excellent.

-----