



CALL FOR CASE STUDIES

for Latin American and Caribbean that demonstrate the economic value of biodiversity and ecosystem services for production sectors

The UNDP Regional Programme for Latin America and the Caribbean is producing an innovative major Report entitled “*Biodiversity and Ecosystems: Why these are Important for Sustained Growth and Equity in Latin America and the Caribbean*”. The Report will be used to engage regional policy makers in relation to the need to maintain, and invest in, biodiversity and ecosystem services.

Objective: Prepare a case study which highlights the economic costs and benefits of business as usual vs. more sustainable ecosystem management, using cases from within Latin America and Caribbean, for a set of productive sectors.

Case studies supporting the following chapters and key messages are invited:

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| <ul style="list-style-type: none">– <i>Agriculture</i>– <i>Forestry</i>– <i>Fisheries</i>– <i>Tourism</i>– <i>Protected Areas</i> | <ul style="list-style-type: none">– <i>Human settlement</i>– <i>Water</i>– <i>Energy</i>– <i>Climate change</i> |
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For more details on expected scope, approach and themes of the case studies please see the detailed guidance sheet.

Process for submission:

1. Submit an overview of case study concept (1 page) by **October 1**
2. The concepts will be reviewed and selected. Selected case studies will be invited to prepare a draft case study (up to 5 pages) to be submitted by **November 10**

For all queries please refer to the detailed guidance.

Primary contact: rhona.barr@undp.org

Biodiversity and Ecosystems: Why these are Important for Sustained Growth and Equity in Latin America and the Caribbean

Call for case studies and scenario analysis for Latin American and Caribbean that demonstrate the economic value of biodiversity and ecosystem services for production sectors

Background:

The UNDP Regional Programme for Latin America and the Caribbean is undertaking an innovative regional initiative entitled "*Biodiversity and Ecosystems: Why these are important for Sustained Growth and Equity in Latin America and the Caribbean Initiative*". The main goal of this Initiative is to produce a report with sufficiently valuable and robust data to inform policy and decision makers in Latin America and the Caribbean of the need to invest in and maintain biodiversity and ecosystem services. The report will do so by focusing on biodiversity and ecosystem services as inputs into economic sectors such as agriculture, fisheries and tourism.

The Report will be launched in 2010, UN Year of Biodiversity and is expected to be an important tool to promote policy dialogue in the region on investment and management of biodiversity and ecosystem services.

Invitation for case studies:

UNDP invites submissions of case studies that will contribute to the strength and success of this Report; studies which illustrate the important role of biodiversity and ecosystem services for the continued economic sustainability (and equitable growth) of production sectors within Latin America and the Caribbean.

Case studies should be no more than 5 pages and focused on specific themes and data sets.

The Report will be a powerful vehicle for showcasing work and findings which are incorporated into the case studies used in the Report. All case studies presented in the Report will be duly attributed to the contributing individuals and institutions.

Structure of Report:

The Report focuses on the importance of biodiversity and ecosystems for productive sectors as well as cross cutting issues. The case studies will be used as

key information within the different chapters and sub-chapters (shown in brackets):

1. Agriculture (crops, agroforestry, livestock)
2. Forestry (timber, NTFPs, carbon)
3. Fisheries (marine, freshwater, aquaculture, sports)
4. Tourism (domestic, international)
5. Protected areas
6. Biodiversity and ecosystem service markets
7. Human settlement
8. Water
9. Energy
10. Climate change

Methodology of Report:

The methodological approach of the Report is to compare economic costs and benefits of Business as Usual (BAU) with Sustainable Ecosystem Management (SEM) scenarios. The report defines BAU as current management practices that contribute to ecosystem and biodiversity degradation. SEM is identified as those management and policy practices that have a reduced negative environmental impact and improved social outcomes, thus contributing to sustainable development; in an ideal scenario these would be practices that are non-corrosive to the environmental and social mesh. However, SEM is also taken to be those practices that constitute a positive move towards this ideal.

Case studies should provide data and interpretation that compare BAU with (movement toward) SEM and not focus on just one or the other. The Case studies must be derived from within the region and should align with and support the key messages of the report. The case studies do not need to define or show an idyllic version of SEM but rather evaluate the pros and cons of taking steps towards improved use of our natural resource base and away from traditional high impact practices.

The key messages are:

- Sustainable Ecosystem Management is pro-growth; Sustainable Ecosystem Management particularly benefits poor and middle class;
- The poor lose from Business as Usual;
- Transitioning Business as Usual to Sustainable Ecosystem Management is economically affordable.

Case Study Objectives and Requirements:

In summary the case studies need to fulfill the following objectives.

1. Address a priority theme for one, or more of the chapters.
2. Use examples, within the priority themes, which do not necessarily demonstrate the ideal version of SEM but rather evaluate the pros and cons of taking steps towards

improved use of our natural resource base and away from traditional high impact practices.

3. Within the selected examples provide data that aligns with the approach of the report. This includes reporting on one or more of the following:
 - a. Estimation of the net benefits of SEM compared to BAU, based on one or more of the following indicators:
 - employment (direct, indirect and induced)
 - fiscal impacts (tax revenues, subsidies and green taxes)
 - foreign exchange (investments, exports)
 - green market/income opportunities & innovation potential
 - opinion polls
 - avoided damage costs
 - returns on investment
 - production (volume and value)
 - productivity (return to labour, land, capital)
 - changes in natural capital
 - equity impact on poor / distribution of benefits
 - b. Identification and assessment of country-level policies to enable the shift from BAU to SEM
 - c. Estimation of the financial costs and benefits of transition from BAU to SEM.
4. Provide data which supports the key messages of the Report.

Scenario Analysis:

In order to provide data on BAU scenarios compared to SEM, researchers are invited to develop scenario analyses that identify the potential changes in sectoral productivity under different management strategies and different policy contexts: BAU compared to a more sustainable ecosystem management practice (SEM). Scenario analyses should present scenarios under short (4yr political) as well as medium (4-20yrs) and/or longer (20-50yr) time frames and should explore the following changes between BAU and SEM:

- Level of ecosystem service input to economic sector
- Resulting change in sector's production
- Change in broader socioeconomic indicators: employment, return on investment, poverty, etc.

Case Study Priorities:

The Table in Annex 1 highlights themes of particular interest to the Report team, by chapter heading.

All case studies should only use examples from Latin America and Caribbean.

Case studies that support the Report objective within any of the chapters that are additional to the priority themes will also be considered.

Process for Submission:

Please adhere the following steps and comply with the dates provided:

1. Overview of case study concept (1 page) to be submitted by **October 1**
2. UNDP will then review and select case studies for preparation
3. Draft case studies (up to 5 pages) to be submitted by **November 10**

Case studies can be prepared in Spanish, Portuguese or English.

Contact for Submissions: All requested documents and related queries should be submitted to the Rhona Barr, Case Study Coordinator at - rhona.barr@undp.org.

Compensation:

It is expected that individuals and institutions will cover their costs of case study preparation with the authors benefiting from inclusion and credit in the Report. Where financial compensation is required please indicate how much in the case study concept note. Limited funds are available to assist where needed but please note that preference will be given to case studies that do not require financial compensation.

Annex 1: Priority themes for Case studies

Sector Chapter	Sub-section summary	Potential themes for Case Studies
<p>1. Agriculture</p> <ul style="list-style-type: none"> • Crops • Agroforestry • Livestock 	<p>a. Costs of BAU</p>	<p>i. Irrigation costs (economic, environmental and social) and their disproportional impact on small acreage or low income farmers – particularly in light of water scarcity and possible incremental implications of climate change</p> <p>ii. Externality costs from downstream pollution</p> <p>iii. Agricultural advancement and distributional impact of resource utilization between rich and lower income groups</p> <p>iv. Economics of deforesting in marginally productive agricultural lands as low cost effectiveness strategy for both private farmers (high investment costs in low fertile lands) and loss of public goods</p> <p>v. Analyses of low/medium probability events with high damage cost such as entire crop losses</p> <p>vi. Financial costs of farm subsidies promoting environmentally unsustainable practices</p> <p>vii. Farm gate and community economic and environmental impacts of supply chain power concentration and policies that either facilitate or relieve the incentives to concentrate market power.</p> <p>viii. Analyses that take poor or underserved populations, gender, race and/or children into specific analytical consideration</p> <p>ix. Social costs of unsustainable land use, including land conflicts and health problems associated with BAU agriculture</p> <p>x. The economic risks of impacting pollinator habitats</p>
	<p>b. Net economic benefits of SEM</p>	<p>i. Economic returns from SEM agriculture for livestock, small producers, agri-business, mixed land use (food/fuel etc)</p> <p>ii. Cost effectiveness of decoupling subsidies from agricultural production and reinvestment into alternative strategies</p> <p>iii. Long-term economic benefits of soil conservation for agricultural production</p> <p>iv. Economic benefits to small farmers of crop diversification vs. mono-cropping e.g. role of diversified strategies and biodiversity for resilience and avoidance of entire crop losses, in particular with respect to food security</p>

		<p>v. Economic benefits of relevant SEM management practices such as organic, integrated pest management, high/native biodiversity practices with particular reference to food security and accessing new market opportunities</p> <p>vi. Increased market competitiveness from SEM agriculture, e.g. organic, certification</p> <p>vii. Economic benefits and potential benefits from agrobiodiversity and/or medicinal plants</p>
	<p>c. Other</p>	<p>i. Economic and environmental costs and benefits of agricultural intensification vs. extensification</p> <p>ii. Analysis of competing land uses between forests, food and fuel</p> <p>iii. How trade incentives maintain BAU and the difficulties in moving into SEM under current trade frameworks</p> <p>iv. Economic and environmental costs and benefits from use of GMOs</p> <p>v. Financial costs of transitioning BAU agriculture to SEM</p> <p>vi. Examples where governments have prohibited or 'disincentivised' agricultural expansion into marginal lands</p> <p>vii. The Amazon water pump and impacts on agriculture</p>
<p>2. Forestry</p> <ul style="list-style-type: none"> • Timber • Non-forest timber products • Energy • Carbon/REDD 	<p>a. Costs of BAU</p>	<p>i. Tax losses due to illegal logging/underpaying legal operations under BAU scenario versus an SEM scenario such as FSC operations</p> <p>ii. Distributional benefits of deforestation, e.g. do profits accumulate in hands of a few key stakeholders?</p> <p>iii. Example of costs from two BAU scenarios: (i) Forest conversion to cattle (ii) degradation of forests though species composition change due to high impact logging</p> <p>iv. Social costs of predatory logging and conversion of forests into other land uses, including violent land conflicts and health problems associated with the loss of forest habitats and burning of forest residuals</p> <p>v. Costs of increased health risks from deforestation</p>
	<p>b. Net economic benefits of SEM</p>	<p>i. Consideration of alternative benefits from NTFPs such as food security, resilience, labour intensity as well as increased benefits/opportunities from NTFP certification</p> <p>ii. Actual and potential revenues from forest concessions (compared with plantation FSC); potential of community</p>

		<p>based forestry concessions for both extractivism and carbon revenues</p> <p>iii. Affect of biodiversity and environmental services on forest productivity e.g. pollination, water, disease control</p> <p>iv. Examples of benefits to indigenous populations from SEM vs. BAU</p> <p>v. Market advantages of sustainable forest management, including certification and other economic incentives</p> <p>vi. Net benefits of FSC certification compared with unsustainable logging, based on revenues, tax, employment, reduction in forest fires</p>
	<p>c. Other</p>	<p>i. Potential for sustainable energy creation through forest biomass</p> <p>ii. Cost of land titling to reduce BAU</p> <p>iii. Estimation of carbon revenues per hectare of forest conserved to show potential income from SEM</p> <p>iv. Financial costs of establishing REDD mechanism to facilitate payments at country and local level</p> <p>v. Investment to-date on curbing deforestation rates in different countries, e.g. from donor projects/ government programmes, and to what success</p> <p>vi. SEM examples of credit schemes for sustainable forestry and reforestation</p> <p>v. Examples of SEM policies e.g. subsidies for reforestation of native trees, and benefits of SEM policies</p> <p>vi. Costs and benefits of mixed native tree plantations vs. monoculture exotic tree plantations</p> <p>NOTE: Case studies addressing forestry issues in sub-tropical forests are particularly invited</p>
<p>3. Fisheries</p> <ul style="list-style-type: none"> • Marine • Freshwater • Aquaculture • Sports 	<p>a. Costs of BAU</p>	<p>i. Examples and analysis of BAU which show declining catch and economic impacts of this on boats, employment, taxes, local economies etc.</p> <p>ii. Financial costs to governments of fishing subsidies</p> <p>iii. Illegal fishing within marine protected areas (MPA) and disproportionate benefits to those illegally harvesting versus the high costs to those in compliance</p> <p>iv. Reduction in food security of small scale fishing communities due to industrial & large scale exploitation/current fishing policies/lack of enforcement</p> <p>v. Costs of BAU aquaculture on surrounding industries, distributional impacts (profits nested in few hands) and long-term feasibility of BAU aquaculture</p>

		vi. Impact of predator loss or species specific reductions/removal has impacted on overall fishery catch
	b. Net economic benefits of SEM	<p>i. Improvement in economic health of fisheries due to ITQs (individual transferable quotas), TURFs (territorial user rights) and community institutions</p> <p>ii. Benefits and costs associated with SEM shrimp industries</p> <p>iii. Benefits of MSC certification for a fishery</p> <p>iv. Examples of integrated coastal zone management having a positive impact on fisheries and local economies, as well as for vulnerable groups</p> <p>v. Social benefits of improving management of freshwater fisheries</p>
	c. Other	<p>i. Examples of shifted management regimes from BAU to SEM and what were the consequences –</p> <p>for example: financial costs associated with transitioning a fisheries from BAU to SEM (monitoring, scientific data, set up costs); where fishermen suffered from restricted catch and loss of revenues within short-term; subsidies/compensation paid during transition phase; boat buyback schemes, incl. costs and benefits of schemes; where fuel subsidies replaced with re-training opportunities for fishermen; freshwater fishery examples; consequences of ITQ introduction</p> <p>ii. Successful policy and management reform and institutional empowerment within LAC fisheries</p> <p>iii. Role of biodiversity within fisheries – benefits of predators, upwellings, complex food chains, breeding grounds, reefs and role of MPA and corridors in capturing these values</p> <p>iv. Trade-offs between over-fishing and their values to other sectors such as ecotourism</p> <p>v. Economics of enforcement for illegal fisheries</p>
<p>4. Tourism</p> <ul style="list-style-type: none"> • Domestic • International 	a. Costs of BAU	<p>i. Environmentally degrading tourism practices</p> <p>ii. Congestion of sites of natural beauty/important heritage</p> <p>iii. Declining visitation rates due to environmental degradation</p> <p>iv. Encroachment of tourism on natural resources used by local/indigenous communities</p> <p>v. Implications of rapid reductions in tourism visitations</p>

	<p>b. Net economic benefits of SEM</p>	<p>i. Comparison of SEM tourism model (e.g. Dominica) with a BAU model (e.g. Dominican Republic) - with particular reference to income multipliers, visitor expenditure, degree of leakage etc.</p> <p>ii. Ecotourism directly supporting government established areas of natural beauty</p> <p>iii. Payments from tour operators or entry fees as payments for ecosystem services to local communities</p> <p>iv. Employment and other equity gains from incorporating local ecosystem knowledge into tour experience and examples of pro-poor tourism initiatives</p> <p>v. Evidence of increased visitation rates due to ecotourism marketing</p> <p>vi. Examples of tourism associated tax-based revenues</p>
	<p>c. Other</p>	<p>i. Linking investment into biodiversity knowledge with economic returns applied to eco-tourism</p> <p>ii. Direct or indirect subsidies associated with BAU tourism</p> <p>iii. Examples of cost effective measures in SEM tourism, e.g. low start up costs and high return rates</p> <p>iv. Data relating to visitations dependent on nature-based tourism (by country)</p>
<p>5. Protected Areas</p>	<p>a. Costs of BAU</p>	<p>i. Loss of ecosystem services associated with degradation of pristine environment</p> <p>ii. Financial losses due to management inefficiencies (e.g. poor spending and investment, poor diversification of revenue generation mechanisms)</p> <p>iii. Negative social and environmental impacts due to lack of private sector involvement in protected area management</p> <p>iv. Negative social and environmental impacts due to lack of community involvement in protected area management</p> <p>v. Erosion of natural capital due to underinvestment in tourism and protected area management</p>
	<p>b. Net economic benefits of SEM</p>	<p>i. Value of ecosystem services delivered by protected areas for sectors such agriculture, fisheries and forestry</p> <p>ii. Sustainability of positive economic impacts on local economies (in and around protected areas) due to SEM practices</p> <p>iii. Potential for inclusion in REDD and associated revenues (barriers and opportunities)</p> <p>iv. Rates of return to investment into Protected Areas,</p>

		<p>such as tourist spending</p> <p>v. Community benefits from Protected Area associated nature-based tourism (equity and distribution of benefits)</p> <p>vi. Examples of nature-based tourism associated tax-based revenues, employment (formal and non-formal), foreign exchange</p> <p>vii. Examples nature-based tourism in protected areas associated with revenue from local concessions</p> <p>viii. Examples of protected areas associated with introduction of green products and establishment of green markets</p> <p>ix. Examples of protected areas associated with property tax/land use planning</p> <p>x. Examples nature-based tourism in protected areas associated with revenue from local concessions</p>
	c. Other	<p>i. Costs and benefits of community run, private conservation areas</p> <p>ii. Costs of and investment costs into Protected Areas, particularly as percentage of money generated by areas</p>
Cross cutting		
6. Biodiversity and environmental markets		
7. Human Settlement		<p>i. Economic values of ecosystem services to large urban areas such as provision clean water,</p> <p>ii. Economic value of ecosystem service in hazard mitigation and defense, particularly in low-lying coastal areas</p> <p>iii. Economic values of ecosystem services to forest communities for food security and health</p> <p>iv. Economic value of natural water provision for agriculture (compared with irrigation costs), particularly in light of climate change and increasing water scarcity</p>
8. Water		<p>i. Forest, wetland, habitat conservation maintaining downstream water flows/quality or deforestation and habitat modification/simplification degrading water flows/quality, particularly those impacts on dams and related hydropower, irrigation and water supply infrastructure</p> <p>ii. Positive or negative impacts of conversions on poor,</p>

		<p>indigenous or marginal groups</p> <p>iii. Economic benefits of flood retention or flood mitigation from maintenance or restoration of wetlands/forests,</p> <p>iv. Low probability, high risk flooding events and associated damage costs under different environmental protection scenarios</p> <p>v. Costs of glacial melt e.g. flooding, impacts on fishing sector</p> <p>vi. Payments for habitat conservation and reforestation through charges on electricity and water tariffs with the express motivation of maintaining or improving the flow regime or water quality</p> <p>vii. Positive or negative impacts of water payment schemes on poor, indigenous or marginal groups</p>
9. Energy		<p>i. Potential for sustainable energy creation through forest biomass</p> <p>ii. Dependence of local communities on biomass for energy</p> <p>iii. Costs and benefits of biofuel production, e.g. loss of ecosystem services and food security compared to increased energy security and potential climate change mitigation – and who are the winners and the losers in this trade?</p> <p>iv. Value of security in supply of energy, particular in hydropower and its provision to production sectors</p>
10. Climate change		<p>i. Biodiversity and increased resilience as an insurance policy against climate change</p> <p>ii. Anticipated costs of adaption</p> <p>iii. Change in ecosystem services, and resulting socioeconomic impacts, due to climate change</p>