Guía Metodológica: Valor Económico de Biodiversidad y Servicios Eco-sistémicos

Raúl O'Ryan

Coordinador Medio Ambiente PNUD Chile

Agenda/ Mensajes Clave

1. El PNUD elabora una guía metodológica para tomadores de decisión sobre como utilizar el enfoque de análisis sectorial en la valoración de servicios eco-sistémicos .

2. La guía metodología orientará a técnicos ministeriales y equipos consultores sobre cómo elaborar escenarios de practicas habituales insostenibles vs prácticas sostenibles para diferentes actividades económicas.

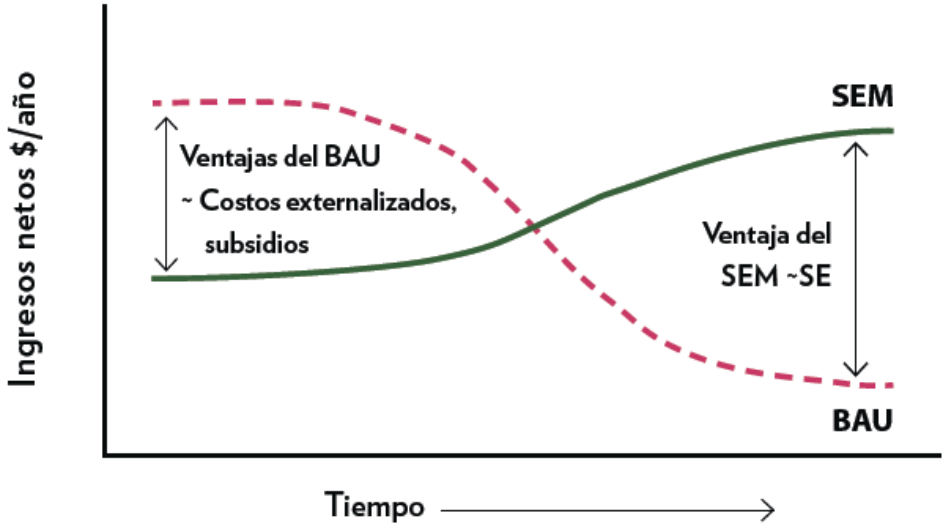
3. A partir de estos escenarios los tomadores de decisión podrán considerar todas las variables previas a una decisión, incluidas las externalidades ambientales que son comúnmente invisibilizadas.

Consultora:

Objetivos de consultoría:
Metodología que analice opciones de gestión alternativas que incorpore argumentación económica sobre el valor de servicios eco-sistémicos.

Proveer a economistas y tomadores de decisión política de las destrezas necesarias para analizar datos útiles para que el gobierno lo incorpore a la planificación económica o de políticas que tenga impacto sobre los servicios eco-sistémicos.

Figura 2.2. Evolución de los ingresos netos según BAU y SEM



Sectoral scenario analysis (SSA)

- Sectoral scenario analysis is an extension of the more traditional cost benefit analysis, as it moves the focus from purely monetary estimates to a more integral narrative of the BAU and SEM scenarios, their outcomes in terms of key indicators, and the pathways leading to those outcomes. An analysis of uncertainty along the relevant planning horizon is key to the description of those pathways.

Paso 1: Defining the policy or management problem

- An environmental decision analyst who has successfully completed the task of "defining the policy or management problem" should be able to answer the following questions:
  - Who are the relevant stakeholders?
  - How open versus narrow is the problem?
  - What is the relevant spatial or geographical scale?
  - What is the relevant time scale?
  - What is the relevant institutional and normative scale?
- With respect to data and information availability, the decision analyst must survey the existing documentation to answer at least the following sets of questions:
  - How is this problem likely to change (evolve) over time if nothing is done (the business-as-usual scenario)? Is it likely to improve or get worse?
  - What are the likely causes of the problem condition? What do people think causes the problem?
  - What solutions have been proposed, if any? How do these solution affect consumption and or production decisions of economic agents affected?

Paso 2: Constructing policy and or management alternatives

The process of determining what should be considered when constructing the BAU and SEM policy alternatives is completed when :

- 1. The detailed content of both the SEM and the BAU policy alternatives is established, reflecting information and an agreement of experts regarding the policies and/or activities that are the constituent elements of the two alternatives
- 2. The relation between those policies and activities and ecosystem management in both BAU and SEM is established as accurately as possible, and gaps of information are properly accounted for
- 3. Key stakeholders have been identified, including those who have authority to make direct decisions, decision makers with an indirect stake in relevant aspects of policy and intervention, and also public and private groups and individuals affected by the change, under both BAU and SEM
- 4. Possible consequences from the implementation of the BAU and SEM policy alternatives have been tentatively identified, and placed within a time dimension

Paso 3: **Selecting criteria and indicators for decision analysis**

The results of implementing each alternative, along with their consequences, can be assessed in terms of different criteria and from the perspective of different affected parties. Which policy or management alternative is best?

- **Examples of criteria commonly used in environmental policy analyses**
  - *Financial criteria and indicators*
  - *Increased human well-being (economic efficiency)*
  - *Equity*
  - *Fairness*
  - *Alleviation of \poverty and unemployment .*
  - *Economy wide effects*
  - *Simplicity and ease of implementation*

Paso 4: **Projecting the consequences of implementing policy alternatives**

Predicting the future: Projections versus forecasts

- This guidebook uses the term "projection" to mean a description of a future, including the dynamics of any pathway leading to it. The term "forecast" is typically used to describe projections that are based on a statistical model, which may then be used to assign probabilities to the projected outcomes.

.

Scenarios as narrative descriptions of the future

A scenario is a coherent, credible and internally consistent narrative of a future state of the world that results from the implementation of a set of policy or management alternatives. Two main factors will affect the internal consistency of a scenario: (1) the degree of precision in the projection and (2) the establishment of a causal relationship between the implementation of the policy alternatives and changes in the outcome indicators used to describe the SEM and BAU scenarios.

Identifying and describing uncertainty in sectoral scenario analysis

- There are four main sources of uncertainty associated to environmental problems, namely:
  - Our understanding of the natural world is limited. The natural world is characterized by complex interactions that happen all the way from the cellular level to sometimes vast interactions of different ecosystems in a given landscape.
  - Our capacity to predict accurately the adaptive response of economic agents in the face of hardship in general and environmental stresses in particular is also limited, making it hard to forecast both the BAU evolving baseline conditions and the SEM scenario.
  - Similarly, we have limited capacity to predict future technological change, and hence a limited understanding of the true costs involved both under BAU and SEM
  - Uncertainty also arises from the reaction of agents to policies and incentives themselves.
  - This subsection follows the standard terminology used by the IPCC (Intergovernmental Panel on Climate Change: see www.ipcc-data.org/ddc_definitions.html.

Paso 5: **The role of valuation studies in Sectoral Scenario Analysis**

Valuation exercises 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. In some circumstances, criteria and indicators will not be easily turned into monetary measures (number of jobs for vulnerable populations, number of indigenous persons displaced by a water dam) and still a sectoral scenario analysis should be feasible if those are the criteria the decision maker cares about.

Still, valuation exercises are an exceptionally important component of a sectoral scenario analysis for several reasons:

- Frequently BAU conditions are measured in monetary terms and a comparison is viable only if monetary estimates of the value of production and consumption under SEM are available.
- If the SEM policy alternative includes outcomes for which there is no prior experience, then non-market valuation of those outcomes will be inevitable.
- Frequently the decision maker is interested in economic indicators, and valuation exercises are the key to distinguish between a financial and an economic measure of impact.

Paso 6: **Making an informed policy or management recommendation**

- Once a policy analyst understands the causal relationship between the policy interventions and outcomes, has calculated the magnitude of the outcomes that may result from each of the policy alternatives, and assessed these outcomes in terms of the criteria selected, the next task is to organize this information to assist decision makers in the choice among the policy alternatives or, more comprehensively, the choice between BAU and SEM.

- **Knowing when to make a recommendation**
  - *Uncertainties and limitations of the analysis*
  - *Differentiating between a recommendation and a personal opinion*

- **Presenting conflicting results**

Próximos Pasos 2012

1. Presentación final por equipo consultor: CCV LLC, Francisco Alpízar and Dale Whittington; **Junio**

2. Revisión por panel de expertos internacional (¿sugerencias ?) Junio-Julio

3. Elaboración final de Guía Metodológica: **Julio-Agosto**

4. Taller Internacional de Economistas Ambientales y Tomadores de Desición: Presentación Formal de la Guía: **Septiembre**

5. Socialización de Guía entre autoridades políticas de la región: **Septiembre-Noviembre**

http://www.undp.org/latinamerica/biodiversity-superpower/Spanish_DownloadRep

AMÉRICA LATINA Y EL CARIBE
UNA SUPERPOTENCIA DE LA BIODIVERSIDAD

English / Spanish / Portuguese

INICIO | BIODIVERSIDAD | INFORME | DOCUMENTO DE POLÍTICA | SOCIOS | PRENSA | COMISIÓN

El informe

El informe busca poner en conocimiento de los tomadores de decisión y políticos, así como del sector privado de América Latina y el Caribe, las oportunidades existentes y los riesgos económicos de emprender actividades productivas que generen un impacto sobre y que sean influenciados por la biodiversidad y los servicios de los ecosistemas (SE). El informe es una herramienta para ayudar a los gobiernos y a las partes interesadas a analizar la función de los SE, a fin de incorporar esos servicios en los planes nacionales económicos, políticos y de inversión sectorial.

Executive Summary
English Spanish

Report
English Spanish

Title Page and Authors
English Spanish

Introductory and Methodology Chapters (chapters 1,2,3)
English Spanish

CAPÍTULOS SECTORIALES
- Agricultura
- Pesca
- Bosques
- Turismo
- Áreas protegidas
- Servicios hidrológicos

DOCUMENTOS ADICIONALES
- Ética
- Salud
- REDD
- Biocomercio
- Financiamiento de la Conservaci

CENTROS DE PODER

DESCARGAR INFORMES

INFORME/CAPÍTULOS INTRODUCTORIOS Y METODOLOGÍA

Elementos de la Metodología

- Descripción de formas alternativas en que Servicios Ecosistémicos (SE) contribuyen a beneficios económicos a diferentes sectores.
- Descripción de costos económicos asociados a degradación de ecosistemas
- Síntesis de herramientas y enfoques de medición de costos económicos.
- Explicación sobre cómo trabajar los siguientes conceptos con tomadores de decisión política: efecto mutiplicador, valores de transferencia, umbrales, irreversibilidad, gestión de riesgos.
- Cómo definir escenarios de prácticas habituales insostenibles (BAU) y prácticas de manejo ambiental sostenible.
- Cómo generar datos de los escenarios y curvas BAU y SEM para estimar beneficios.
- Cómo generar datos de los impactos en los SE de ambos escenarios.
- Cómo generar datos de fuentes primarias para ambos escenarios.
- Marco analítico para procesar datos generados
- Esquema de presentación de análisis que sea útil para tomadores de decisión.

TERMINOS DE REFERENCIA PARA SSA (1)

Background

- State who is the decision maker/stakeholders
- State what is the sector that is the focus of the analysis
- Others as relevant to the specific policy problem

Conceptual background

- Provide reference to this guidebook

Main tasks:

- Prior to any field work, describe the background, including all possible interrelations between the specific production or consumption sector under study and the natural resource base.
  - Construct a conceptual model of all existing interactions between the ecosystem under study and the productive sector under analysis. The model should be concise and descriptive rather than analytical or mathematical. Within the conceptual model, identify the current (as existing today) policy instruments or strategies that generate concrete funding for protected area management in Belize. Entrance fees to PA and earmarked airport taxes are two examples of these policies.
  - Based on the conceptual model, identify actual and potential environmental inputs that the ecosystem provides to the productive sector.
  - Again based on the conceptual model, identify actual and potential environmental goods and services that the ecosystem provides to the productive sector.

TERMINOS DE REFERENCIA PARA SSA (2)

- Based on consultations with the decision maker and key stakeholders, define the policy problem. Provide a background to how the process was conducted and how the final policy or management problem came about,
  - In consultation with the decision maker, select out of the conceptual model the main issues to analyze,
- Based on workshops, focus groups and/or expert interviews, provide a description of the BAU alternative, and proposed SEM policy or management alternatives. How was the process towards agreement?
  - Provide a detailed description of BAU
  - Provide a detailed description of SEM
- Select and justify the relevant indicators for sectoral scenario analysis for the specific problem at hand
  - In consultation with the decision maker, select the relevant criteria and indicators that capture change in the relevant criteria. Provide a sound and defensible justification.
  - For each indicator, mention the expected relation between the ecosystem under study and changes in the indicator.
- Provide a short review of existing information and identified data gaps.
- Construct the BAU and SEM policy or management scenarios. Do this for each indicator. Whenever primary data is collected, provide a detail description of the valuation methodology used, and how the estimated value respond to changes in the temporal and spatial dimension so as to provide a background regarding how generalizable are the results.
  - Provide an account of uncertainty in the analysis
- Provide a policy recommendation. Provide a set of simple but strong key take home messages for the decision maker.