

Title: Development of tool for gauging positive activities for and economic valuation of biodiversity/ecosystem servicesⁱ

Implementing Partners:

- Conservation International
- Institute for Global Environmental Strategies
- CEPA Japan

Relevant Cluster:

Cluster 3: Indicators Research

Background

Biodiversity is largely economic externalities, and development activities consider it only tangentially. However, biodiversity, renewable natural capital, forms the basis of social development. The idea that environmental concerns can be subordinated to economic growth disregards this fact. To realize sustainable development that harmonize development and environment, a tool is necessary to visualize the importance, value and state of biodiversity and indicates positive actions for conservation so that every member of society can understand the change in the state of biodiversity and what needs to be done.

The Economics of Ecosystem and Biodiversity (TEEB; www.teebweb.org) is one of such efforts that puts biodiversity and ecosystem services on the same table as other economic activities. Ocean Health Index (OHI; Halpern et al., 2012) is another that gauges the current state against sustainability reference points in multiple public interests and induces positive actions towards sustainability.

Objectives

The objective of this study is to contribute to mainstreaming natural capital into the society by:

1. Developing a quantitative index that gauges the level of actions for conservation of biodiversity and ecosystem services from the perspective of sustainable use (LHI: Land Health Index); and
2. Conducting economic valuation of ecosystem services (EV).

These will be performed on priority sites for conservation, or KBAs, to demonstrate to the public their hidden value and to induce further conservation actions.

Activities

This interdisciplinary study aims to develop a tool that can be used to gauge the actions toward the conservation and sustainable use of natural capital and the economic

values of ecosystem services. For both objectives, KBAs, the biodiversity priority areas, will be used for the unit of analysis. Ultimately, this study aims to contribute to wider awareness-raising for natural capital.

For LHI, we adopt the approach of Ocean Health Index and modify to fit to terrestrial environment and the scale appropriate for within-country evaluation. The index will be improved iteratively by testing in pilot areas for feasibility of computation and responsiveness to change in key parameters. For EV, we will use the TEEB approach for economic valuation of the same pilot sites. The pilot sites will be selected from the list of KBAs for their strong natural and cultural characteristics to calibrate the evaluation model and to understand the behavior of the model with different levels of data quality.

In the second year, the computation of the LHI and EV will be expanded to larger set of KBAs for general application. We will use the meetings of International Partnership for the Satoyama Initiative to present and discuss the project as well as to seek feedbacks and collaborators.

Schedule (provisional)

April – June, 2013	Initial exploration of evaluation model; production of zero-th version.
July – December, 2013	Try-out of the zero-th version of evaluation model in pilot study sites Present and receive feedback at IPSI-4 Receive review by experts
January - March, 2014	Release of the beta-version of LHI and EV Publication of interim results in a journal and web site
April – September, 2014	Preparation of data for the implementation of LHI and EV for larger set of KBAs Evaluation using the beta-version Receive expert reviews Finalize the LHI and EV evaluation model
October, 2014 – March, 2015	Report back at IPSI-5; call for participation for assessment in other countries Publication of results in journals, website, and other appropriate venues.

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