

# Ecosystem Services

## HOW TO GET STARTED WITH AN ECOSYSTEM SERVICES APPROACH



Coastal Protection, The Bahamas © Jonathon Kerr / TNC



Fish Catch, India © Markus Spring / Flickr Creative Commons

*Ecosystem services* are the direct benefits that humans receive from ecosystems, such as clean water, flood mitigation and climate regulation. An *ecosystem services approach* seeks to integrate ecosystem services into decision-making by (a) using scientific assessment tools to understand people's dependence and impact on the services provided by ecosystems, and (b) applying policy mechanisms that incorporate ecosystem service values into the decisions made by governments, businesses, NGOs and individuals. A variety of tools and guidelines are available to conservation practitioners interested in using an ecosystem services approach. This document describes some of the tools to help get started.

### WHAT TOOLS ARE AVAILABLE?

By demonstrating the importance and value of ecosystems to humans, an *ecosystem services approach* can put ecosystem services on the agenda of governments, businesses, NGOs and individuals. The approach typically uses two sets of tools: (1) *Scientific assessment tools*, such as economic valuation, trade-off analysis and spatial modeling of ecosystem services under alternative scenarios, to understand people's dependence and impact on ecosystem services

(2) *Environmental policy instruments*, such as regulation, payments, markets, fiscal incentives and information provision to influence human behavior that affects nature's ability to provide ecosystem services.

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### Scientific Assessment Tools

A range of tools are available to:

- (i) map the geographic location and characteristics of ecosystem services and their beneficiaries;
- (ii) assess the state and trends of ecosystem services;
- (iii) determine economic values for services; and
- (iv) evaluate how services, beneficiaries and trends are impacted by different policy scenarios.

Some of these tools are described below.

**The Millennium Ecosystem Assessment** offers a state-of-the-art scientific audit of the condition and trends in the world's ecosystems and ecosystem services, as well as a review of the drivers of ecosystem change. The United Nations Environment Programme (UNEP) is currently drafting a Millennium Ecosystem Assessment manual, which explains how to conduct a sub-global ecosystem service assessment [millenniumassessment.org](http://millenniumassessment.org)

**InVEST** software (Integrated Valuation of Ecosystem Services and Trade-offs) can provide maps of multiple ecosystem services and their values under alternative scenarios of future change.

[naturalcapitalproject.org](http://naturalcapitalproject.org)

The World Resources Institute (WRI) has developed an **economic valuation methodology** that provides a simple and replicable method for estimating the value of coral reefs and mangroves, looking primarily at their direct economic benefits.

[wri.org/project/valuation-caribbean-reefs](http://wri.org/project/valuation-caribbean-reefs)

**The Ecovalue Project** provides an interactive decision support system for assessing and reporting the economic value of ecosystem services in a geographic context.

[ecovalue.uvm.edu](http://ecovalue.uvm.edu)

**Casebase** aims to stimulate the development and exchange of practical tools and best practice for the valuation of ecosystem services.

[eyes4earth.org/casebase](http://eyes4earth.org/casebase)

### Guidance for Environmental Policy Instruments

A number of guidance documents have been developed to help public decision-makers, businesses, individuals, and NGOs develop and implement environmental policy instruments that can maintain or enhance the availability of ecosystem services.

**Ecosystem Services:** A guide for decision-makers (WRI) presents a step-by-step process that can be used by the public sector to assess societal dependence on ecosystem services and develop policies to ensure those services are provided.

[wri.org/publication/ecosystem-services-a-guide-for-decision-makers](http://wri.org/publication/ecosystem-services-a-guide-for-decision-makers).

**Getting Started:** An introductory primer to assessing and developing payments for ecosystem services is an introductory resource on developing payments for ecosystem services (PES). It explains the issues and steps involved and provides links to other PES resources.

[katoombagroup.org/learning\\_tools.php](http://katoombagroup.org/learning_tools.php)

**The Corporate Ecosystem Services Review** provides a method for helping businesses manage risks and opportunities arising from their impact and dependence on ecosystem services.

[wri.org/publication/corporate-ecosystem-services-review](http://wri.org/publication/corporate-ecosystem-services-review)

**WRI's Nutrient Net** offers web-based tools to facilitate market-based approaches to improve water quality through trading and reverse auctions.

[nutrientnet.org](http://nutrientnet.org)



Wetland services, The Bahamas © Jonathan Kerr / TNC

## FURTHER READING

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