## TOOLS AND DATABASES

## **DECISION SUPPORT TOOLS**

WRI (2008) Ecosystem Services: A guide for decision makers. This easily accessible report frames the link between development and ecosystem service, points out risk and opportunities and provides clear guidance for decision makers (http://www.wri.org/publication/ecosystem-services-a-guide-for-decision-makers).

**IUCN WANI toolkit.** The IUCN Water and Nature Initiative (WANI) together with 80+ partner organizations have developed a toolkit which includes a guide on the use of valuation. It provides guidance for water management at the local and national level (www.iucn.org/about/work/programmes/water/resources/toolkits).

The Katoomba Group offers PES learning tools for developing agreements for payments for ecosystem services (PES). It outlines important steps for getting started with PES and provides links to further guides (www.katoombagroup.org/learning\_tools.php).

Designer Carrots decision support tool. The tool helps decision makers to assess whether market based instruments (MBI) are a suitable tool for solving issues of natural resource management and which type of MBI may be most appropriate. MBI Guide: www.marketbasedinstruments.gov.au/Portals/0/docs/DST\_%20final\_web.pdf (http://www.marketbasedinstruments.gov.au/).

**Poverty-Forests Linkages Toolkit.** Developed by PROFOR in collaboration with several partners the toolkit includes a set of rapid appraisal methods to gather information on economic as well as other contributions from forests to households, especially the poor (http://www.profor.info/profor/forestry\_poverty\_toolkit).

**CRISTAL** (Community-based Risk Screening Tool - Adaptation & Livelihoods) is a tool developed by IISD and IUCN to facilitate the integration of risk reduction and climate adaptation into development strategies of local communities (http://www.iisd.org/pdf/2007/brochure\_cristal.pdf).

**Ecosystem Services Management:** A briefing on relevant public policy development and emerging tools (Fauna & Flora International). The publication provides a brief introduction to markets and assessment tools of ecosystem services (http://www.naturalvalueinitiative.org/download/documents/Publications/Ecosystem\_Services\_Management.pdf).

BRS (2008) Measuring Corporate Impact on Ecosystems: A Comprehensive Review of New Tools. Overview of some existing tools; presenting their pros and cons to help decision makers in selecting the tool that suits their needs best (www.bsr.org/reports/BSR\_EMI\_Tools\_Application.pdf).

**BBOP** (Business and Biodiversity Offset Program) Toolkit. Developed by Forest Trends this toolkit provides step-by-step guidance on how to effectively mitigate and avoid an organizations impact on biodiversity (http://bbop.forest-trends.org/quidelines).

**ESR** (Corporate Ecosystem Services Review). This structured methodology developed by the World Resource Institute helps corporate managers to proactively develop strategies for managing business risks and opportunities arising from their company's dependence and impact on ecosystems (http://www.wri.org/project/ecosystem-services-review).

**NVI** (Natural Value Initiative) is an assessment approach (toolkit) which enables the finance sector to evaluate how well the food, beverage and tobacco (FBT) sectors are managing biodiversity and ecosystem services risks and opportunities (www.natural-valueinitiative.org/content/003/303.php).

**IBAT** (Integrative Biodiversity Assessment Tool) is in development by Conservation International, drawing on rapid ecological assessment methodologies and aims to enable companies to identify potential site specific impacts and risks associated with biodiversity (www.ibatforbusiness.org).

SDRN (2007) Emerging Methods for Sustainability Valuation and Appraisal provides an overview on (valuation) methods (www.sd-research.org.uk/wp-content/uploads/sdrnemsvareview-final.pdf).

**Ecosystem-Based Management Tools Network** (www.ebmtools.org/) is a database that provides a list of tools for ecosystem-based management in coastal and marine environments (www.smartgrowthtools.org/ebmtools/index.php).

## SOFTWARE TOOLS

**InVEST** (Integrated Valuation of Ecosystem Services and Tradeoffs) is a GIS based tool developed by The Natural Capital Project. It can be used to model and map the delivery, distribution, and economic value of ecosystem services. It helps to visualize the impact of decisions, identify tradeoffs and synergies, and assess possible scenarios including climate change (www.naturalcapitalproject.org/InVEST.html).

**CITYgreen** by American Forest is a proprietary GIS-based software tool enabling city planners to integrate the benefits of urban forestry in decision making (www.americanforests.org/productsandpubs/citygreen).

MIMES (Multiscale Integrated Models of Ecosystem Services) is available in an early version ("beta plus") from the University of Vermont's Gund Institute for Ecological Economics. www.uvm.edu/qiee/mimes

ARIES (Assessment and Research Infrastructure for Ecosystem Services) is under development by the University of Vermont's Ecoinformatics "Collaboratory", Conservation International, Earth Economics, and experts at Wageningen University (esd.uvm.edu).

**Marxan** is a conservation planning software developed by the University of Queensland, Australia. It supports decision makers with reporting on the performance of existing reserve systems, designing new reserves and developing multiple-use zoning plans (www.uq.edu.au/marxan/index.html).

**itree** by US DA Forest Service is a toolbox for city planners and urban arborists to integrate tree benefits in landscape architecture and apply urban forest effects model (www.itreetools.org).

Tree benefit calculator is a web-based calculator - base on the itree model - pointing out tree specific benefits in a depictive way, especially to inform and raise awareness about the benefits of neighborhood trees (www.treebenefits.com/calculator).

**BGIS** (Biodiversity GIS) is a web-based mapping tool providing free information on biodiversity aiming to assists decision makers and spatial planners in South Africa (bgis.sanbi.org).

**AGWA** The Automated Geospatial Watershed Assessment (AGWA) Tool is a GIS-based watershed management tool that parameterizes and runs two watershed models, KINEROS2 and SWAT. AGWA is designed to provide qualitative estimates of runoff and erosion relative to landscape change (www.tucson. ars.ag.gov/agwa).

**Biodiversity Planning Toolkit** is developed by the Association of Local Government Ecologists (ALGE) and uses interactive maps to incorporate biodiversity in spatial planning (www.biodiversityplanningtoolkit.com).

## **DATABASES**

Database C	rganization	Weblink
Case studies		
Biodiversity Economics	IUCN and WWF	http://biodiversityeconomics.org/library
International Model Forest Network	International Model Forest Network (IMFN)	www.imfn.net/index.php?q=node/4
Database on Ecosystem Services & Sustainable Management	NatureValuation.org	www.fsd.nl/naturevaluation/73764
Natural Capital Database	Natural Capital Project	www.naturalcapitalproject.org/database.html
CCBA Standard	Climate, Community and Biodiversity Alliance	www.climate-standards.org/projects/index.html
Innovation Cases in Forestry	EU, BOKU, EFI	http://cases.boku.ac.at/
Market based instruments		
Species Banking	Ecosystem Market Place Netwok	www.speciesbanking.com/
Ecosystem Service Project	CSIRO	www.ecosystemservicesproject.org/
Networking		
Ecosystem Service Expert Directory	World Resource Institute	http://projects.wri.org/ecosystems/experts
Wiser Earth Network	Wiser Earth	www.wiserearth.org/issues
Indigenous and Community Conserved Areas Registry	UNEP-WCMC	www.iccaregistry.org
Biodiversity and conservation		
World Database on Protected Areas	UNEP-WCMC, IUCN	www.wdpa.org/MultiSelect.aspx
IUCN Red List of Threatened Species	IUCN	www.iucnredlist.org
Biodiversity Hotspots species database	Conservation International	www.biodiversityhotspots.org
BirdLife International data zone	BirdLife International	www.birdlife.org/datazone
Global Biodiversity Information Facility Data Portal	Global Biodiversity Information Facility	http://data.gbif.org
Alliance for Zero Extinction Database	Alliance for Zero Extinction	www.zeroextinction.org/search.cfm
Important Plant Areas (IPA) Database (UK only)	PlantLife International	www.plantlife.org.uk/nature_reserves
General information & research		
Research Ecosystem Services	Stockholm Resilience Center	www.stockholmresilience.org/research/ researchthemes.4.aeea46911a312742798 0006208.html
SANDEE research database	SANDEE	www.sandeeonline.org/research_db.php
EcoLex Environmental Law Database	FAO, IUCN, UNEP	www.ecolex.org
EarthTrends Database	World Resource Institute	http://earthtrends.wri.org/searchable_db/index.php?theme=1