Co$tingNature (Costing Nature)

King's College London (applications, data, models), AmbioTEK (software, data, models), UNEP-WCMC (applications, data)

Publication year: 2009 Version of tool: 2.5

Visit homepage

Overview

Co$ting Nature is a web based tool for natural capital accounting; it analyses the ecosystem services provided by natural environments, the beneficiaries of these services, and the impacts of human interventions. It tests the intended and unintended consequences of development actions on ecosystem service delivery in silico before they are tested in vivo, and calculates a current ecosystem service baseline. The Policy Support System (PSS) uses detailed spatial, global datasets at 1 km2 and 1 ha resolution, spatial biophysical and socioeconomic models, plus climate and land-use scenarios. We do not focus on valuing nature (how much someone is willing to pay) but rather costing it (understanding the resource e.g. land area and opportunity cost of nature being protected to produce the ecosystem services that we need and value). We provide input data for application of this model anywhere globally, or users can use this model with their own datasets.

Section 1: Relationship to the Natural Capital Protocol

Impact drivers

Water use	☑	Terrestrial ecosystem use	☑	GHG emissions	☑
Water pollutants	☑	Fresh water ecosystem use	☑	Non-GHG air pollutants	
Soil pollutants		Marine ecosystem use		Disturbances	☑
Solid waste		Other resource use	☑	Impact on Biodiversity	☑

Dependencies

Energy		Regulation of physical environment	☑	Knowledge	
Materials	☑	Regulation of biological environment		Well-being and spiritual/ethical values	
Nutrition	☑	Regulation of waste and emissions	☑	Dependency on biodiversity	☑
Water	☑	Experience	☑		

Stage	FRAME (Why?)		SCOPE (What?)		MEASURE AND VALUE (How?)			APPLY (What next?)	
Step	01 Get started	02 Define the objective	03 Scope the assessment	04 Determine the impacts and/or dependencies	05 Measure impact drivers and/or dependencies	06 Measure changes in the state of natural capital	07 Value impacts and/or dependencies	08 Interpret and test the results	09 Take action
		☑	☑	☑	☑	☑	☑	☑	☑

Details on valuation if applicable:

☑	Qualitative
☑	Quantitative
	Monetary
	Value to business
	Value to society

wbcsd

NATURAL CAPITAL COALITION

Co$tingNature (Costing Nature)

King's College London (applications, data, models), AmbioTEK (software, data, models), UNEP-WCMC (applications, data)

Publication year: 2009 Version of tool: 2.5

Visit homepage

Section 2: Details for business users

Organizational Focus:

The part or parts of the business to be included in a natural capital assessment.

- ☑ **Corporate:** Assessment of a corporation or group, including all subsidiaries, business units, divisions, different geographies or markets, etc.
- ☑ **Project:** Assessment of a planned undertaking or initiative for a specific purpose. NOTE this includes assessments of sites, activities, processes, and incidents.
- ☑ **Product:** Assessment of particular goods and/or services, including the materials and services used to produce these products

Value Chain Boundary

The part or parts of the business value chain to be included in a natural capital assessment.

- ☑ **Upstream** (or cradle-to-gate): covers the activities of suppliers, including purchased energy
- ☑ **Direct operations** (or gate-to-gate): covers activities over which the business has direct operational control Including majority-owned subsidiaries.
- ☐ **Downstream** (or gate-to-grave): covers activities linked to the purchase, use, reuse, recovery, recycling, and final disposal of the business' products and services.

Geographical scope

☑	All	☐	Africa	☐	Antarctica	☐	Asia
☐	Europe	☐	North America	☐	Oceania	☐	South America

Sectoral Scope

☐	All sectors	☑	Agriculture
☐	Apparel	☑	Banks, finance and insurance
☐	Capital goods (including electrical equipment and machinery)	☐	Chemicals
☐	Commercial and professional services	☑	Construction and engineering services
☑	Construction materials	☐	Consumer services (including hotels, restaurants and leisure)
☐	Energy: non-renewables (including oil, gas and consumable fuel)	☐	Energy: renewables
☑	Environmental and ecological management services	☐	Fisheries
☑	Food and beverage (including tobacco)	☐	Healthcare and pharmaceutical
☐	Household and personal	☐	Information and communication technology
☐	Media	☑	Metals and mining
☑	Paper and forest products	☑	Real estate
☐	Retailing	☑	Transportation
☐	Utilities (including electricity, gas and water)		

Type of tool and key features

☐	Equations, formulae, methods used for computations	☑	Spatial mapping or modelling, GIS data or files of measurements/values
☐	General framework or guidelines	☑	Specially designed to compare multiple options/scenarios/strategies
☐	List of references and sources to find measurements/values	☐	Spreadsheet that already includes background measurements/values
☐	List of measurements/values	☐	Spreadsheet that does not include any background measurements/values
☐	Mechanism to collect ecological data	☐	Survey or questionnaire
☐	On-line calculator or model		
☐	Other: N/A		

wbcsd

NATURAL CAPITAL COALITION

Co$tingNature (Costing Nature)

King's College London (applications, data, models), AmbioTEK (software, data, models), UNEP-WCMC (applications, data)

Publication year: 2009 Version of tool: 2.5

Visit homepage

Section 3: Requirements of use

Intended User:

☑	Business	☑	General public	☑	Conservation organization
☑	Policy / government	☑	Science / academia		
	Other: N/A				

Skills required:

	No specific skills are required		Modelling expertise
☑	Some environmental background needed		LCA (Life Cycle Assessment) expertise
	Environmental economics		Ecology expertise
	GIS (Geographic Information Systems) expertise		Computing expertise
	Other: N/A		

Data required:

☑	No		Yes

N/A

Average time required:

☑	Hours		Days		Weeks		Months		Years

Variables that may affect the time required:

An analysis of the current baseline (based on data provided with the tool for anywhere in the world), takes less than 30 minutes. Each scenario applied would then take a further 30 minutes each. Should the user wish to prepare and upload their own data in place of that which we provide then some GIS skills are required. Instructions are given for data conversion using Free and Open Source Software. Using your own data means an analysis would take a few hours to a few days, depending on whether the data already exists or has to be collected.

Software requirements if applicable:

No. Firefox or Chrome web browsers are required on any hardware platform.

Cost to access:

☑	Free to access		Indefinitely (pay once, permanent access)
	$1 – 1,000		Per use
	$1,001 – 5,000	☑	Per license
	$5,001 – 10,000	☑	Per year
	>$10,000		
	Other: N/A		

Other information regarding the cost to access:

The standard non-commercial version is free to use and is used by 99% of our users. The higher level use version provide more support and enhanced storage and functionality and are charged with different costs (and different systems) for non-commercial and commercial use, see here http://www.policysupport.org/access-costs. We also provide free higher level use licenses to those who wish to collaborate in development or for whom funds are limited.

Other conditions of use:

No

Planned updates:

These systems are regularly updated (both analytical tools, interface and data)

Links to pilots, case studies or reviews (max 3)

http://www.policysupport.org/costingnature/example-applications

http://blog.policysupport.org/search?q=guest+post+costingnature

N/A