TESSA:
A practical tool to assess the socio-economic benefits of protected areas

Stream 4: Valuation of Protected Area systems

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Overview

TESSA - Toolkit for Ecosystem Service Site-based Assessment - provides **accessible** guidance on **low-cost** methods for how to evaluate the benefits people receive from nature at protected areas (or other **sites**) in order to generate information that can be used to influence **decision making.**

The Toolkit for Ecosystem Service Site-based Assessment has been developed by

Anglia Ruskin University · BirdLife International · Partnership for nature and people · rspb giving nature a home · Tropical Biology Association · UNEP · WCMC · University of Cambridge

Who this toolkit is for

This toolkit has been designed to allow users to develop an understanding of the benefits we receive from nature, and assess their value, in order to generate information for decision making.

- **Conservation practitioners** and those with an interest on supporting better biodiversity conservation through ecosystem service arguments

- The methodology applicable to a wide range of users: forestry, fisheries, water **managers**, land use **planners**, **development organisations**, the **private sector** and many others

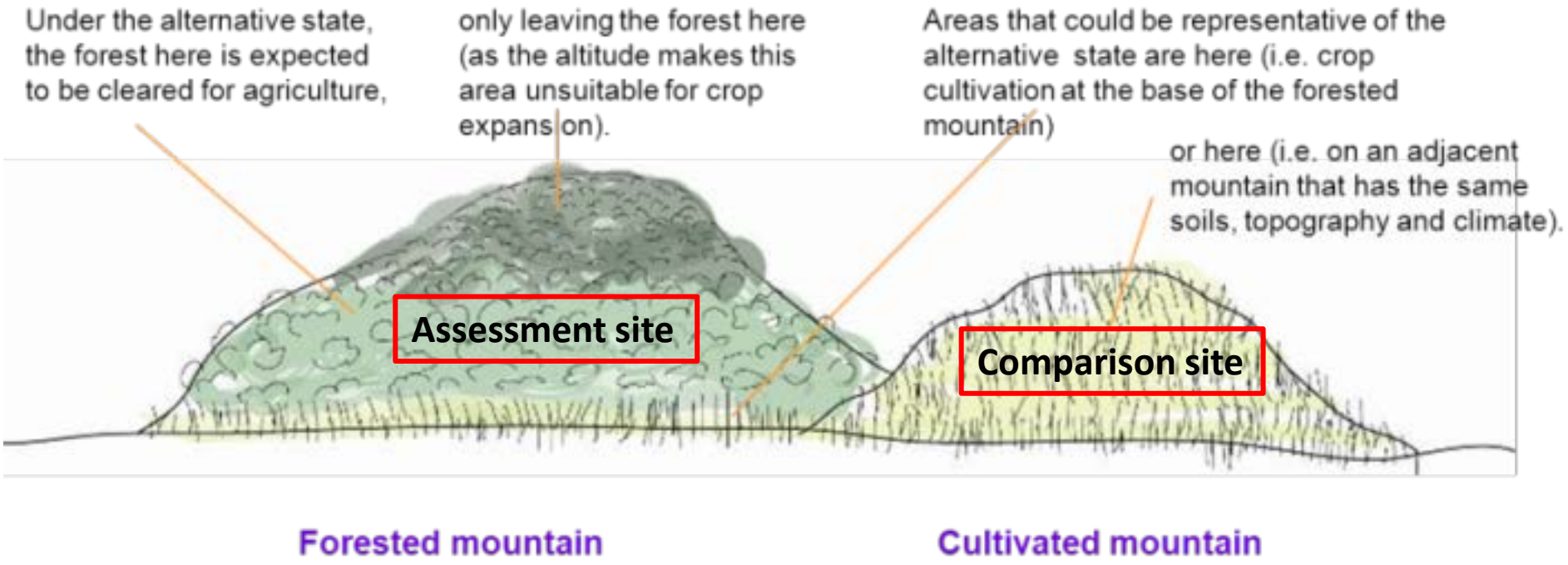
Purpose and scope

Understanding the impacts on ecosystem services of actual and potential changes in state at individual sites is important for promoting better planning decisions to support both biodiversity conservation and ecosystem service delivery.

Protected Ramsar site with wild herbivores

Unrestricted domestic cattle grazing

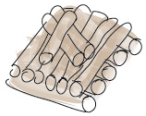
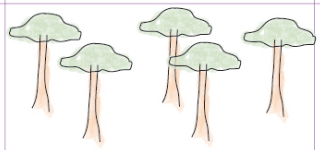
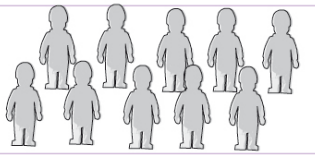
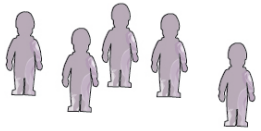
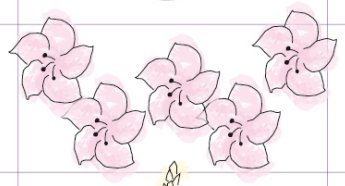
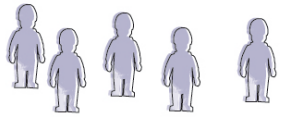
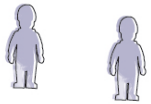
Example


Under the alternative state, the forest here is expected to be cleared for agriculture,
only leaving the forest here (as the altitude makes this area unsuitable for crop expansion).
Areas that could be representative of the alternative state are here (i.e. crop cultivation at the base of the forested mountain)
or here (i.e. on an adjacent mountain that has the same soils, topography and climate).
Assessment site
Comparison site
Forested mountain
Cultivated mountain

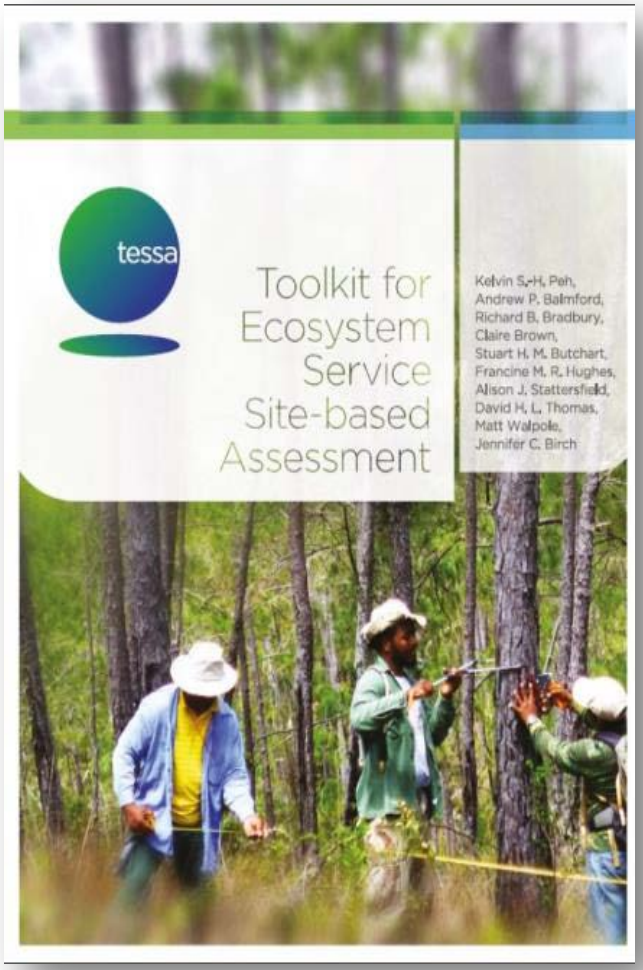
Purpose and scope

An ecosystem service only exists if someone derives benefits from it. Social, political and ecological factors all play a role. The distribution of benefits, and the impacts of change, may not be equitable. It is essential to understand who the beneficiaries are so that the full consequences of changes in ecosystem services can be assessed.

Example

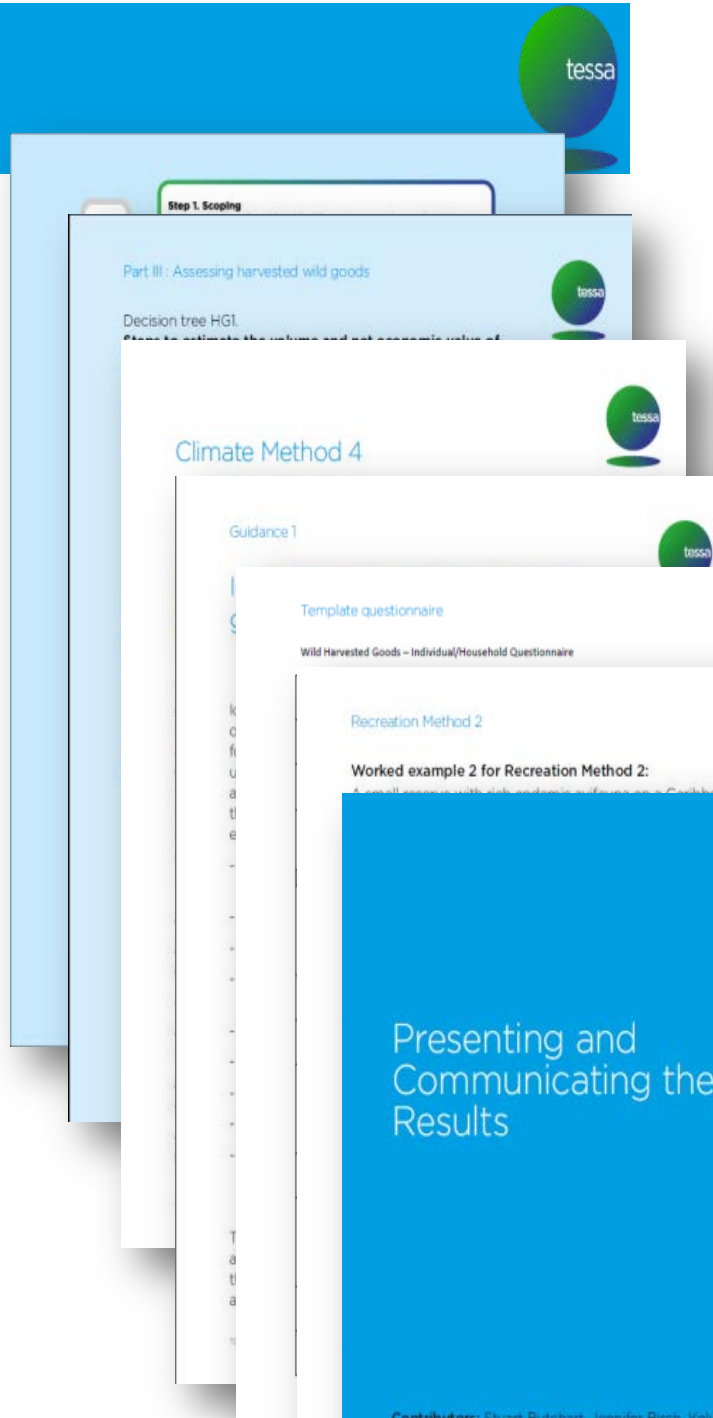
Ecosystem services	Current value	What would happen in the alternative state	Who gains	Who loses
Timber				
Global climate regulation				
Water services				
Medicial plants				
Cultivated goods				
Nature-based tourism				

The Toolkit



The toolkit includes:

- ❑ Step by Step guidance
- ❑ Decision trees (flow charts)
- ❑ Detailed methods
- ❑ Additional guidance and tips
- ❑ Templates
- ❑ Worked examples
- ❑ Guidance on data synthesis



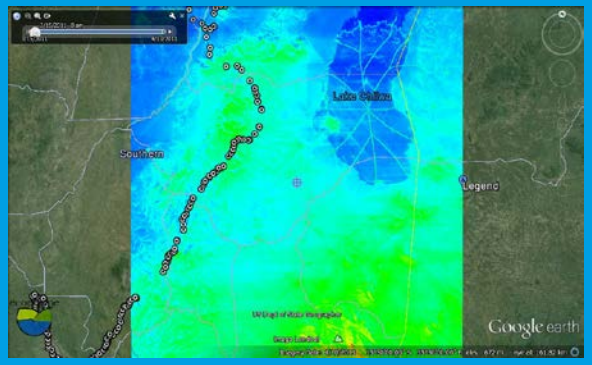
Participatory approach

builds awareness

generates opportunities for dialogue among stakeholders

improves uptake of the results

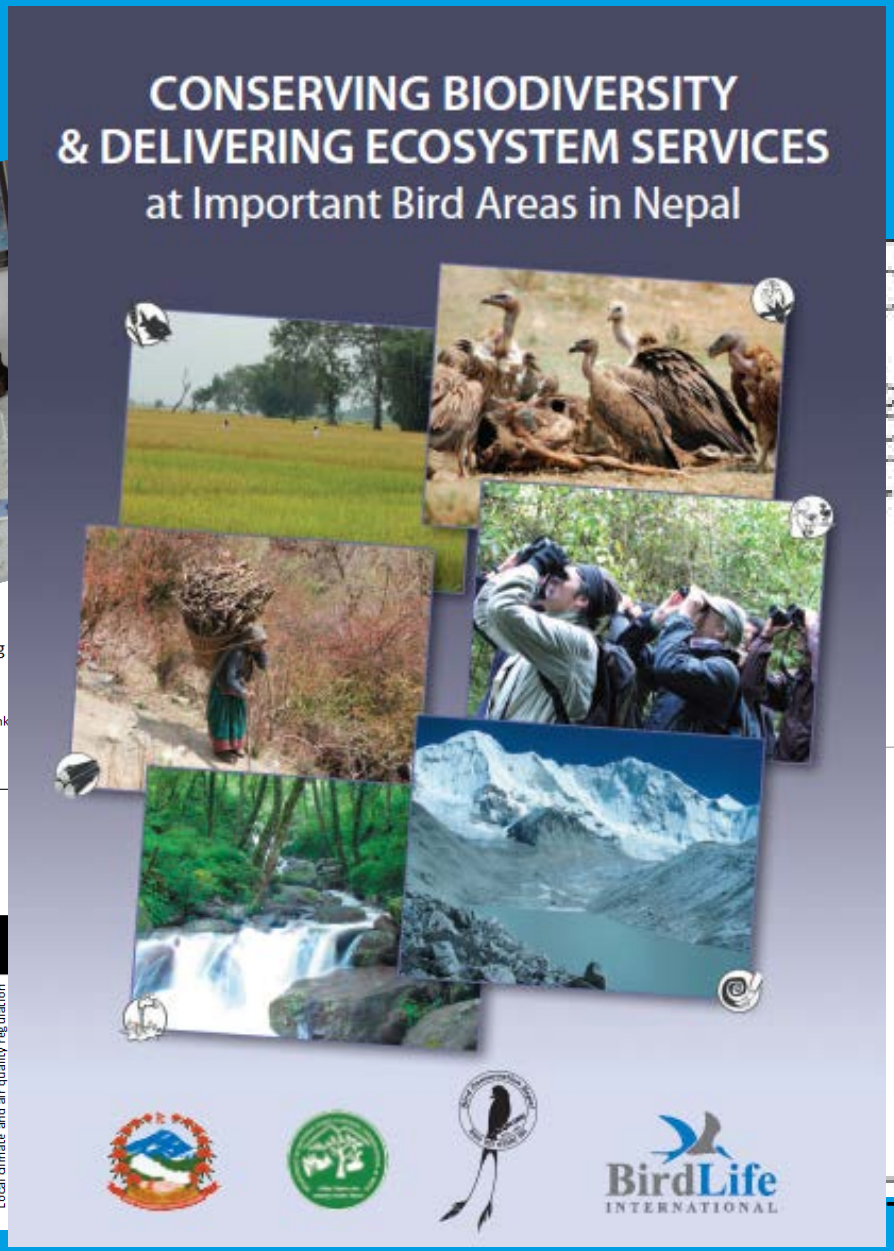
underpins conservation strategies that deliver better outcomes

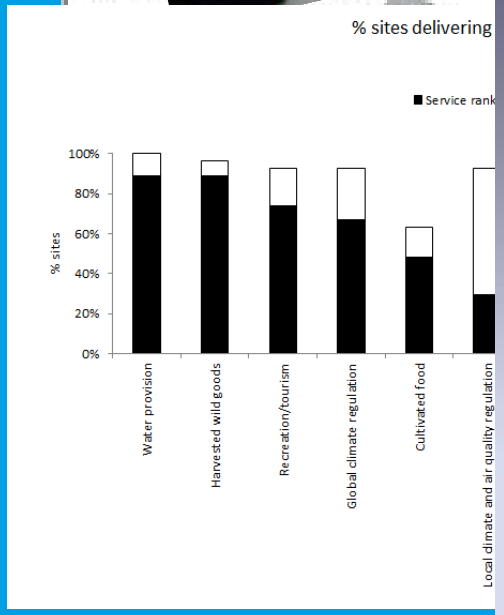


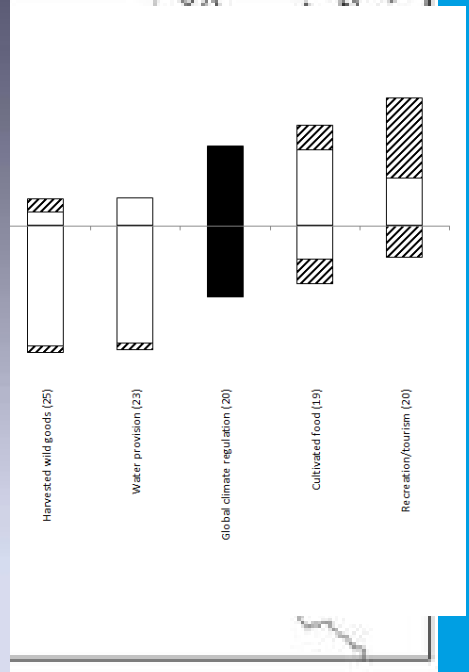
Allows exploration of ecosystem service trade-offs

Assessments to date

Informing policy in Nepal

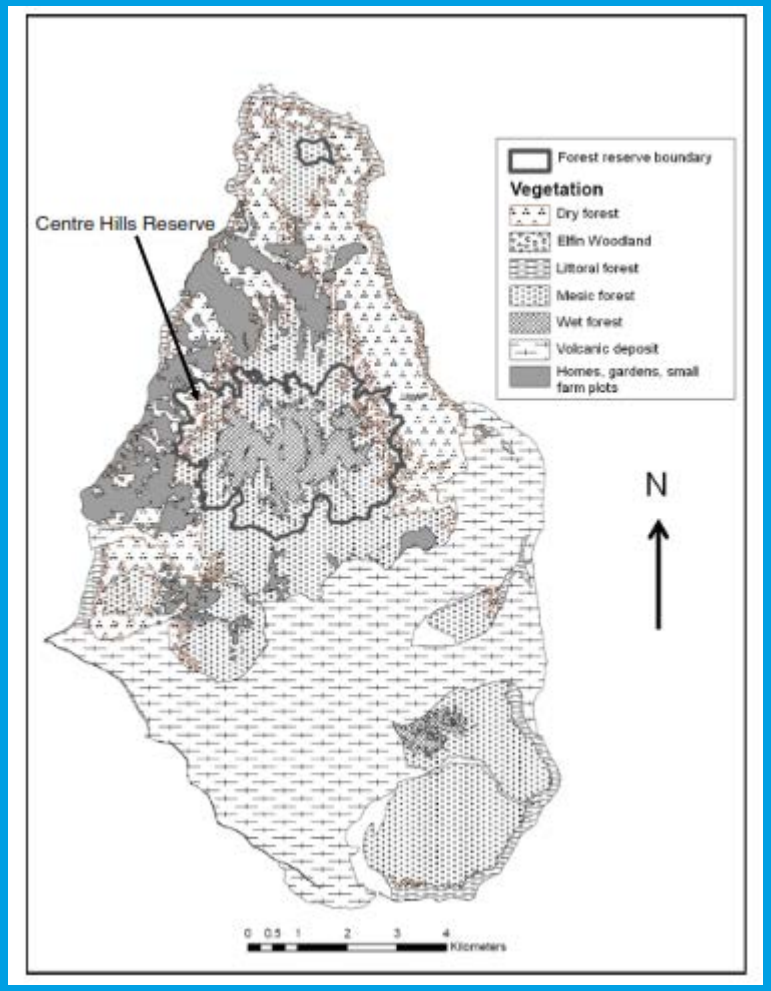






Thapa et al. 2014 Oryx

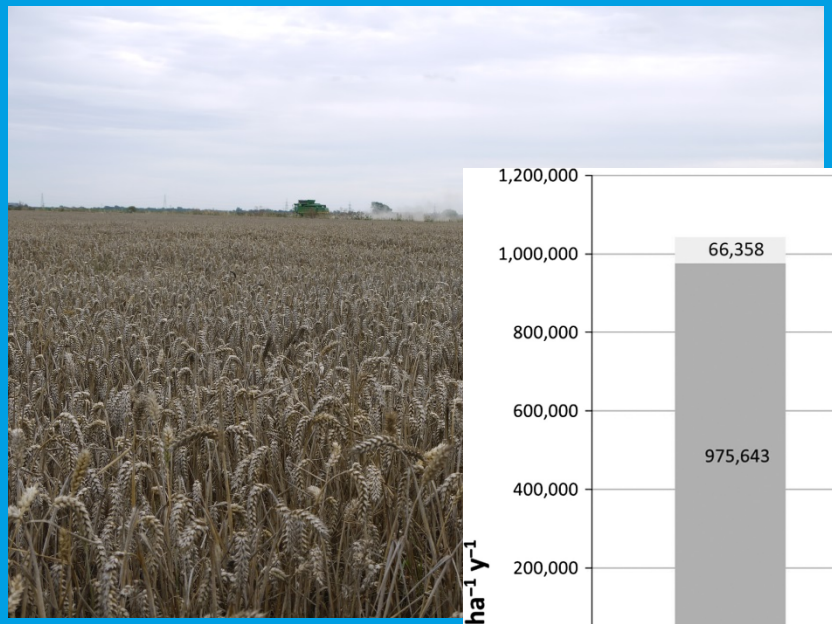
Forest management strategies, Montserrat



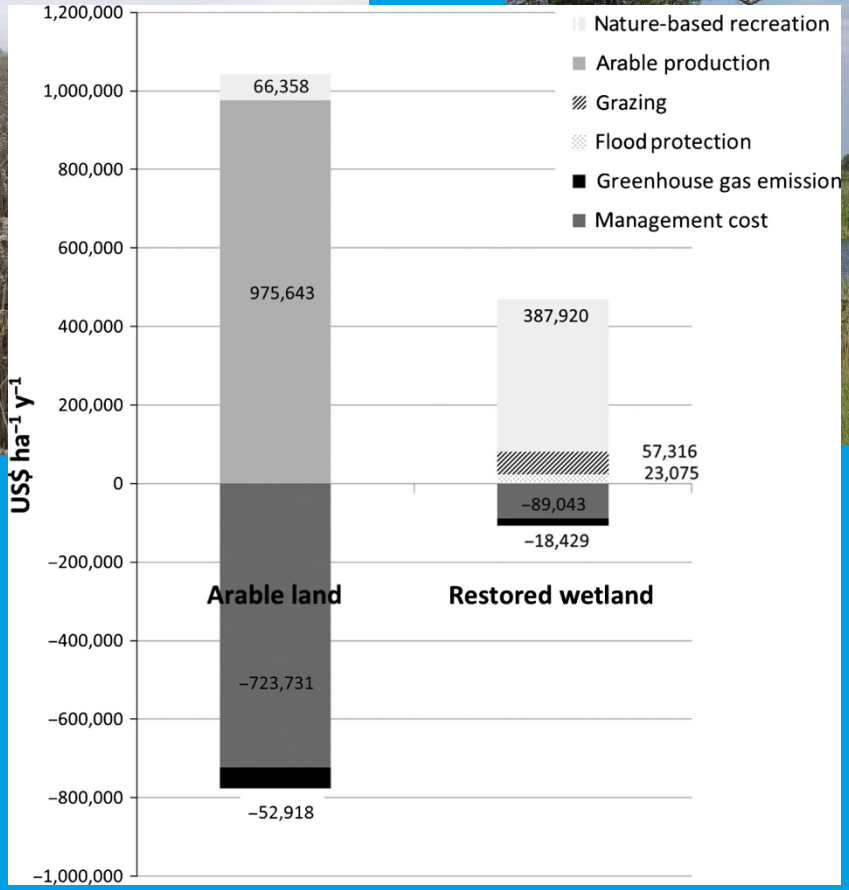
Peh et al. 2014 Biological Invasions

Protected area management, Ecuador

Wetland restoration outcomes, UK



Arable land



Restored wetland

Peh et al. 2014 Ecol & Evol

More information

More information at
www.tinyurl.com/tessatoolkit

- Webinar: http://youtu.be/Dn2Vd0HCprc
- E-poster

Version 1.2 available to download: http://tessa.tools

TESSA is an evolving resource (subject to funding)

Additional resources and publications

BCN and DNPWC (2012) Conserving biodiversity and delivering ecosystem services at Important Bird Areas in Nepal.

Birch, J.C., et al. (2014) What benefits do community forests provide, and to whom? A rapid assessment of ecosystem services from a Himalayan forest in Nepal. Ecosystem Services (8) 118-127

Peh et al. (2014) Potential impact of invasive alien species on ecosystem services provided by a tropical forested ecosystem: a case study from Montserrat Biological Invasions July 2014

Thapa, I., et al. (2014) Using information on ecosystem services in Nepal to inform biodiversity conservation and local to national decision-making. Oryx [published online 4 August 2014]

Peh et al. (2013) TESSA: A toolkit for rapid assessment of ecosystem services at sites of biodiversity conservation importance Ecosystem Services (5) 51-57

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