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CONVEGNO INTERNAZIONALE
DARE VALORE ALLA NATURA
I Servizi ecosistemici per “nutrire il pianeta”
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EXPO 2015 - MILANO

“The value and social significance of ecosystem services in Finland and in the Nordic Countries”



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EXPO
MILANO 2015
FEEDING THE PLANET
SMOOTH FOR LIFE



Outline

- TEEB Nordic and TEEB Finland: context and objectives.
- ‘A taste’ of key results: *agricultural landscape, reindeer herding, pollination.*
- Case: Payments for Ecosystem Services (PES).

TEEB Nordic & TEEB Finland

TEEB – The Economics of Ecosystems and Biodiversity

Making Nature's Values Visible



KEY OBJECTIVES

- Identification of ecosystem services
- Identification of indicators: biophysical & socio-economic
- Exploration of policy responses



THE ECONOMICS
OF ECOSYSTEMS
NORDIC SYNTHESIS

A synthesis developed by the European Environmental Policy Group and the Finnish Environment Institute, with contributions and support from many experts.

Carried out in the context of The Economics of Ecosystems and Biodiversity (TEEB) and funded by the Nordic Council of Ministers in the context of the Finnish Presidency 2011.

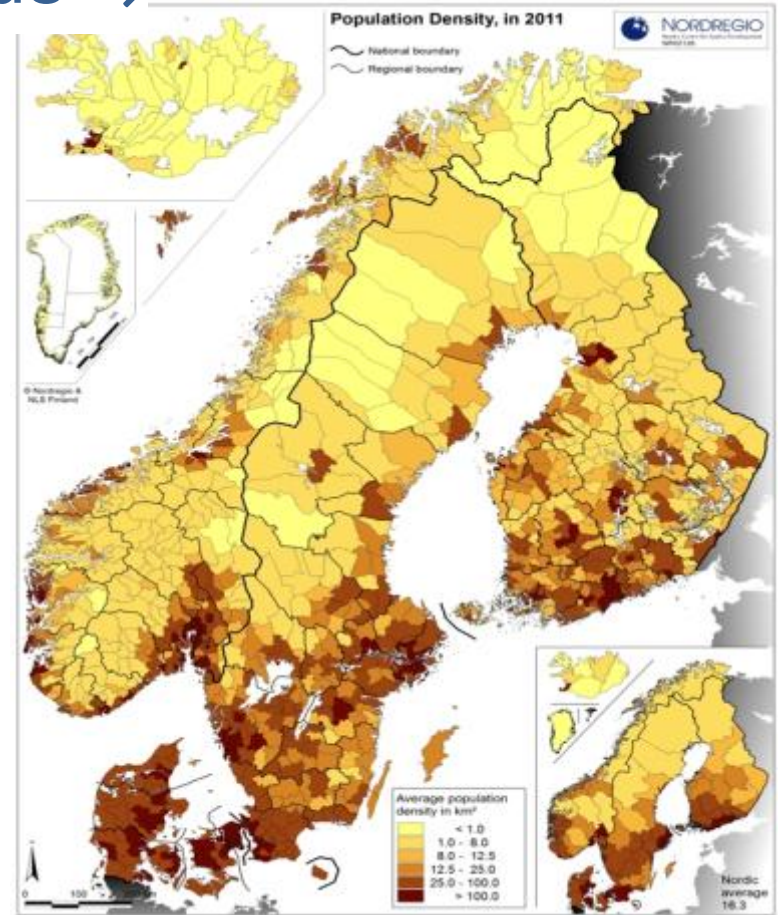
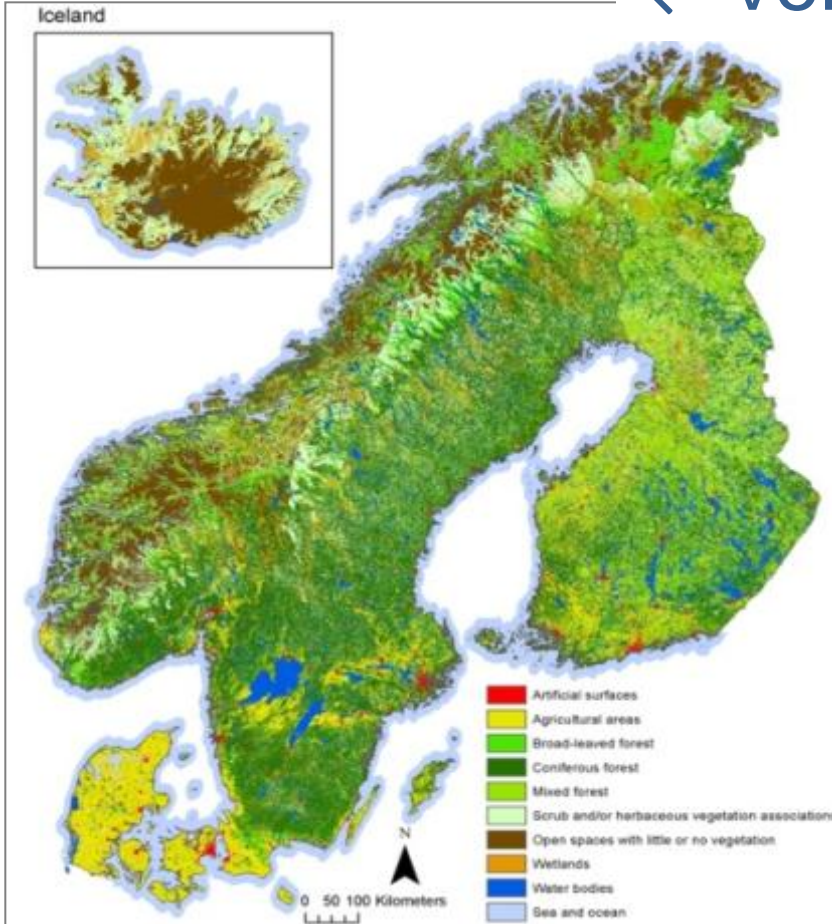
'A taste of' key results

Examples of Ecosystem Services and their indicators



Nordic Countries

← Versus →



CORINE Land Cover

Data source: EEA: Corine Land Cover 2006 raster data – version 16 (04/2012). © SYKE, © European Environment Agency.

Population density

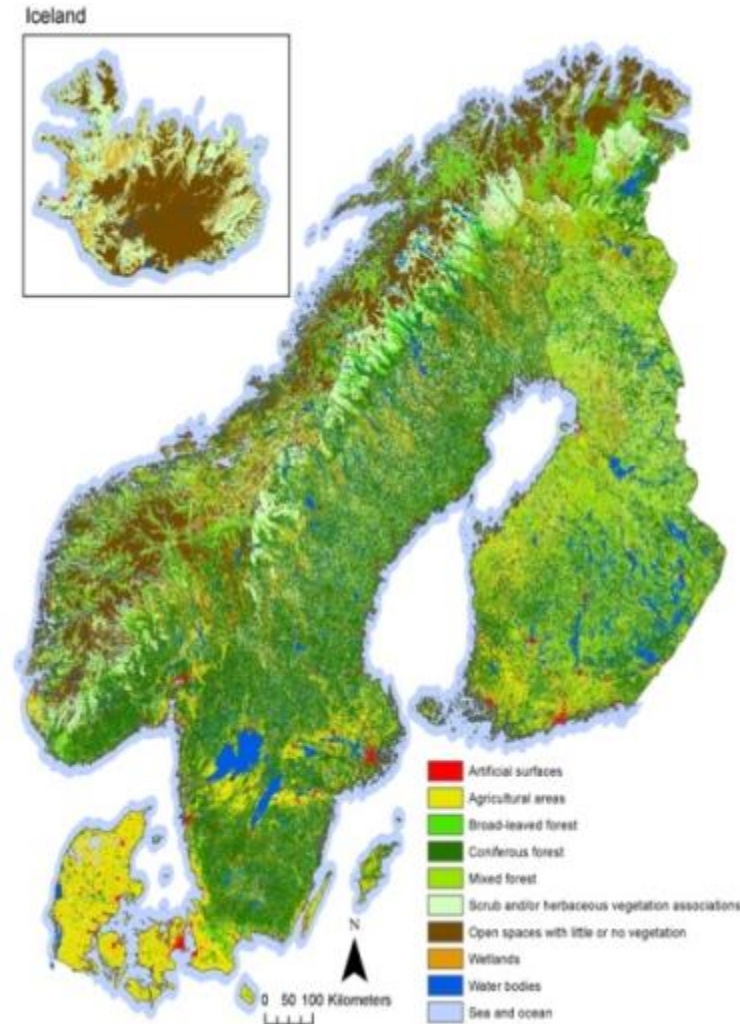
Data source: Nordregio Nordic Centre for Spatial Development. © SYKE, © Nordregio

Nordic 'specialities'

Wood-based bioenergy
Reindeer herding
Non-timber forest products
Water purification

Closely linked to

Recreation and tourism
Bio-innovations / bio-economy
Carbon storage and sequestration
Nature-inspired arts, crafts, fashion

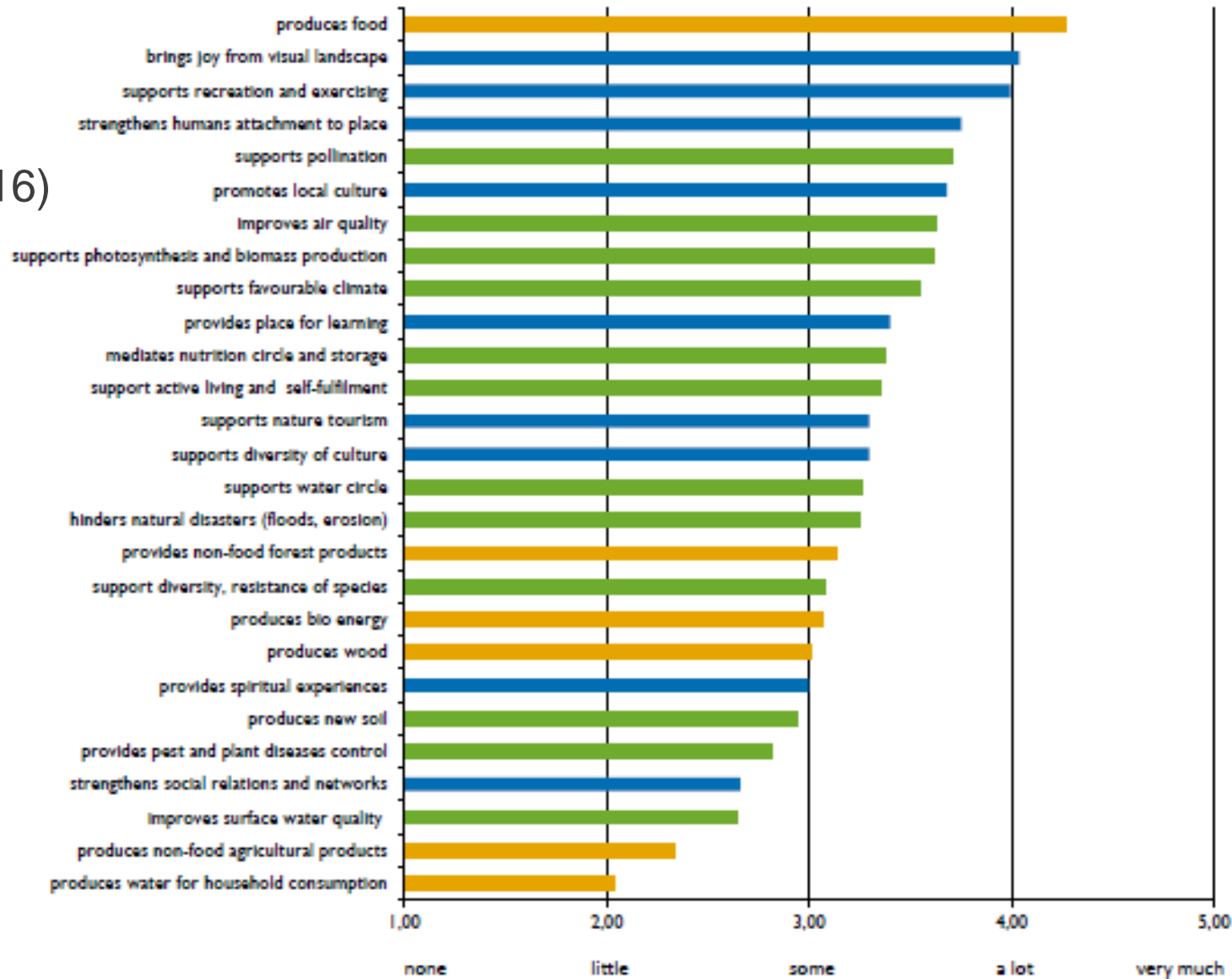


CORINE Land Cover

AGRICULTURAL LANDSCAPE

Citizens' (N= 3016)
evaluation
of the
importance of
ecosystem
services

Pouta et al. 2014

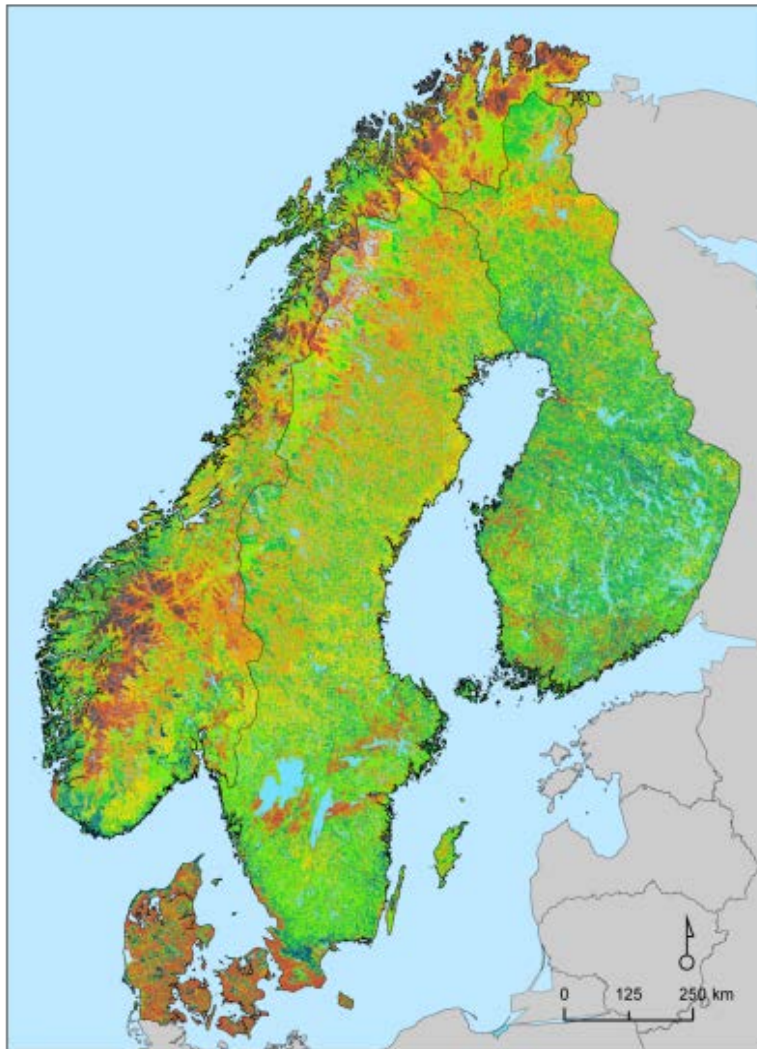


Reindeer herding

Country	Herders	Reindeers	Size land (km ²)	Organisation	Monopoly	Value (M EUR)		
						2004	2005	2006
Finland	5 600 Sami & non-Sami	186 000	114 000 (33%)	57 cooperatives	No	>10	>10	13
Sweden	3 500 Sami; 1000 non-Sami	227 000	160 000 (34%)	51 villages	Yes	<5	<5	7
Norway	2 936 Sami	165 000	140 000 (40%)	80 districts	Yes	<10	<10	<10



Pollination

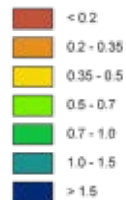


Finland: honeybee pollination of selected crops estimated at 18 million EUR a year; and of wild berries 3.9 million EUR a year (Lehtonen 2012).

Denmark: insect pollination estimated at 56.6 to 92.8 million EUR a year (Axelsen et al. 2011).

Sweden: honeybee pollination estimated at 21.5- 37 million EUR a year (Pedersen 2009).

relative pollinator abundance (bumble bees)



The most important pollinators are bumblebees and honeybees

Payments for Ecosystem Services

Potential for the implementation in Finland



PES for water in Finland

Private PES

Initiated by water companies seeking to establish nature-based solutions for securing good quality water and deal with wastewater treatment

LIFE+ projects for water and nature

Can have a pioneering role in kick-starting PES scheme or establishing other market-based instruments, but cannot be used to finance on-going payments

One-off investments in green infrastructure

Can work together with PES to secure ecological continuity (e.g. wetland restoration)

Municipal water fees

Can be used to implement public PES schemes, but require participatory approach, including communicating values and results to relevant stakeholders

Regional / Local

River basin management plans

Can potentially constitute the framework for implementing PES at watershed level

National / Regional

Improved agri-environmental schemes

Introducing outcome-based payments and targeting ecologically sensitive areas for water management

Water purification

Water regulation

Regulatory / legislative baselines

Underlying the policy mix and securing a safe minimum standard of biodiversity conservation and ecosystem services provision

No existing PES schemes in Finland.

Potential to develop PES-type measures by creating a mix of policy instruments where PES can work efficiently

Message from the North

Ecosystem services:

Universal concept

Context-specific recipe



KIITOS THANK YOU GRAZIE

TEEB Nordic

Study available at: <http://www.ieep.eu/work-areas/biodiversity/financing-biodiversity/2013/01/socio-economic-socio-economic-importance-of-ecosystem-services-in-the-nordic-countries-synthesis>

TEEB Finland

Study available at: <http://www.ieep.eu/publications/2015/01/the-value-and-social-significance-of-ecosystem-services-in-finland-teeb-for-finland>

GOOGLE IT!
“TEEB Nordic” and
“TEEB Finland”

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