Reporting Parallel Session 1

Forests, conservation of biodiversity, landscape protection and public services.

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C. Keenleyside

Forest public services and market goods
Forest biodiversity
Carbon stored in EU forests
Forests in the landscape
Forests and people

Can we supply all these forest services?

Forest types

forest type	mono-functional	multi-functional	conservation
perception of the forest	primary production	production plus environmental and social benefits	managed for nature and people
characteristics	intensive production of timber and other wood products	'closer to nature' forestry, some timber production, with trade-offs between different functions	old-growth forests, nature reserves, protective forests, urban forests

What should be the priorities for 2014-20, and how do we deal with the trade-offs?

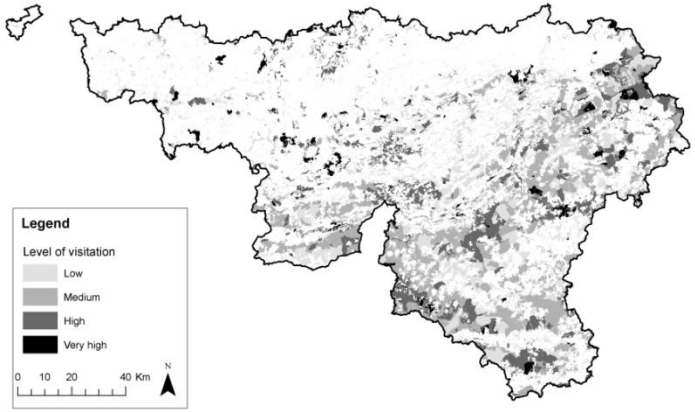
–EU Biodiversity 2020 target for FMPs, Natura 2000 and HNV forests?
–Carbon, energy, protecting water, soils and the forests themselves?

Direct benefits

V.Colson – Analysis of the recreational function of the Walloon forest: a rural forest in periurban environment

Quantification of the size of the recreational function at the regional level

Analyzing at regional level the volume of activity in forested areas for recreational purposes

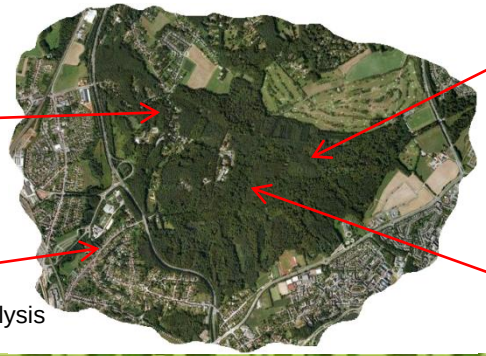


- a **social phenomenon** (45% of people) to be considered in all forest policy-making for conflicts with different functions.
- are influenced by the infrastructures and by the **proximity** to urban areas
- are an **essential service** in a day-to-day living for periurban forests
- Public >>Private - Broadleaves >> Conifers
- Big differences between methods , TCM *vs*. WTP

O.Baudry and M.Davadan - A case-study of a multifunctional urban forest in Belgium: the *Bois de Lauzelle*, example of multi-purposes forest management

RESEARCH STUDIES
RENECOFOR

STUDENTS ACTIVITY
- creating glades
- plantings
- undertaking dendrometric analysis

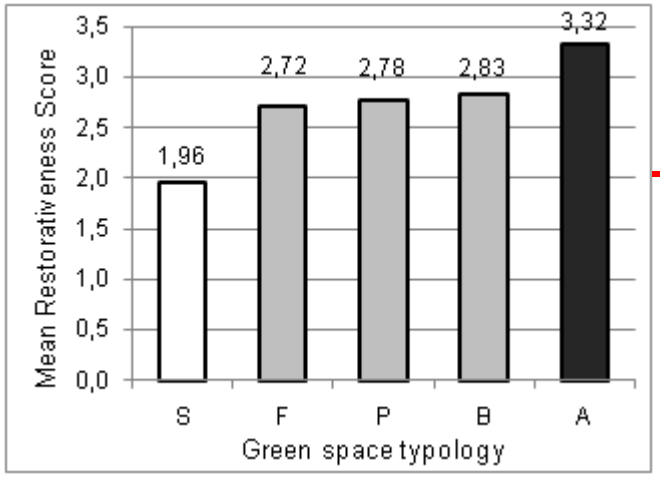


SERVICE TO SOCIETY
- creating pathways through forest
- opening to public
- holding of forest sports events
- hosting of school groups

FOREST MANAGEMENT
UCL permanent inventory of forest resources

Dentamaro I. et al., Evaluating the restorative potential of different urban green space typologies

Urban green spaces are seen as fundamental in improving human well-being and quality of life, psychological restoration, “forest therapy” (?)



\+ RESTORATIVENESS

\+ NATURALNESS

- URBAN GREEN SPACE = low restorative potential
- PERIURBAN GREEN AREA = high restorative potential

- comparing perceived restorativeness with perceived naturalness, a robUst correlation

Asciuto A., Monetary Valuations of Monumental Trees and Other Natural Resources between Demand for Conservation and Recent Requirements for Outdoor Activities: Some Case Studies in the Madonie and Nebrodi Regional Parks of Sicily

Existence value and increasing benefits of monumental trees and natural resources, for conservation and fruition, using TCM and WTP, in 3 case studies.

Landscape and ecosystem services

C.Cirillo et al., The Forest and the Dune: eco-days to explore Cuma Forest

- New experiences closed to nature

To promote knowledge and fruition of a natural area through many different activities, which purposes is to spend for society guided eco-tours at the discovery of the forest, its ecosystems and its biodiversity

F.Blasi et al., LIFE+ project DINAMO - Flow of the ecosystem services in rural areas

Conserving, increasing and monitoring biodiversity and the ecosystem services in the agricultural and semi-natural areas in Southern of Molise, with the collaboration of farmers and local administration

MAIN OBJECTIVES

- study on **evaluation** of Ecosystem Services
- preparing **models** of ES through GIS
- ecological network (rural areas and SIC/ZPS areas)
- adopting **conservation and agricultural policies**

to induce farmers to supply and maintain ES, such as habitat, pollination, soil conservation, carbon sink, aesthetic landscape

8 CONSERVATION ACTIONS

- nidification and reproductive success of bird species
- protection of threatened amphibians species
- restore habitats with autochthonous trees and shrubs
- collect, keep and propagate seeds of native shrubs and tree species

Elia M. et al., Spatial and temporal response of insect communities to fire disturbance in Mediterranean forests - Relationship between insect abundance and fire disturbance

The effects of fire on ecological communities: does distance from ignition point explain patterns of spatial and temporal variation in insect communities?

RESULTS

- spatial and temporal variations of insects: decreasing of*Coleoptera* (lethal surface temperature, loss of litter and predation) and increase of the total amount
- fire disturbance is a **key factor** driving species turnover and natural forest succession in Mediterranean forest ecosystems
- using **fuel models/appropriate treatments** into forest management

Giacanelli V. and Ercole S., A report on Italian *ex situ* conservation of plant biodiversity

ISPRA HANDBOOK guide-lines

- *Conifers and broadleaves*: to enhance links between public sector, research and private nurseries to improve quality and biodiversity conservation
- *Shrubs*: Existing *in vivo* collections need to be supported by in vitro conservation, cryoconservation and DNA banks. On farm conservation has to be encouraged
- *Introduced species*: risk assessment procedures are strongly needed to determine their level of invasiveness

Fell more timber or plant more trees? Conservation *vs* production issue

Pignatti G. et al., High nature value forest areas: a proposal for Italy based on national forest inventory data - Enhancement of the HNV of forest ecosystems

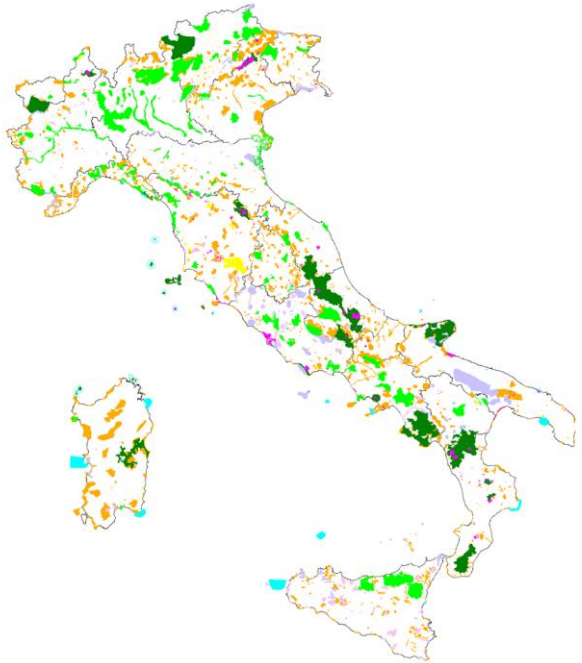
Proposing a procedure to assess the High Nature Value (HNV) forest areas' baseline extent in Italy, according to the guide-lines provided by the European Evaluation Network for Rural Development

NFI 2nd level data (INFC 2005) and MCPFE BioIndicators,

- Naturalness
- Introduced tree species
- Regeneration
- Protected forests
- Deadwood
- Specific composition

HNV FORESTS: 2.259.066 ha, 26% of total surface area

HNV forests play a key role in the habitats and species safeguard, especially in protected areas, where the forest management is minimum



Petriccione B., Development of a European forest biodiversity status indicator - Forest quality, functionality and integrity

Implementing a new European forest biodiversity status indicator (FSI) obtained through elaboration and synthesis of current metadata and methodologies at European level

A tentative to transfer complex biological data into radar diagrams across 3 bio-geographical regions (Alpine, Continental, Mediterranean); 7 parameters:

Tree condition, structure, deadwood, tree and vascular plant specie composition, conservation status in N2K forest and naturalness (from non native plantations to old growth forests)

Measuring changes in time and 'distance' from target, *trend in extent and composition of selected ecosystems*

Public services

Morri E. - Woodland Ecosystem Services evaluation of Marecchia river basin (Italy)

Comparing the forest direct-use value with the indirect-use values (forest ecosystem services) in Marecchia river basin

ECOSYSTEM SERVICE	EVALUATION METHOD	INDICATOR	ECONOMIC VALUE
• water regulation and purification • soil protection as prevention of soil erosion • carbon sequestration	• avoided cost/direct price • replacement cost • emission permit price	• woodland annual value • value of water regulation/purification • value of soil fixation • CO2 storage	• Wr=91 Mio E/y • Wp=33 Mio E/y • Sp=5.1 Mio E/y • CO2 fix=3.2 Mio E/y

Forest policy tends to overestimate the direct-use value and underestimate the role of indirect-use value

Quantifying Ecosystem services can help to make natural resource decisions more **effective** and **efficient**

Present and future of the Rural Development Policies

A fruitful informative discussion around several pilot studies and some possible new ideas:

"**Social" forestry** (and integration with agriculture)

To develop new concepts to limit abandomement (**minimum growing stock to be mantained** for each forest type: High forests *vs* Coppices?), stimulate harvest, preserving biodiversity at landscape level (**rewildering** is going on, till where?)

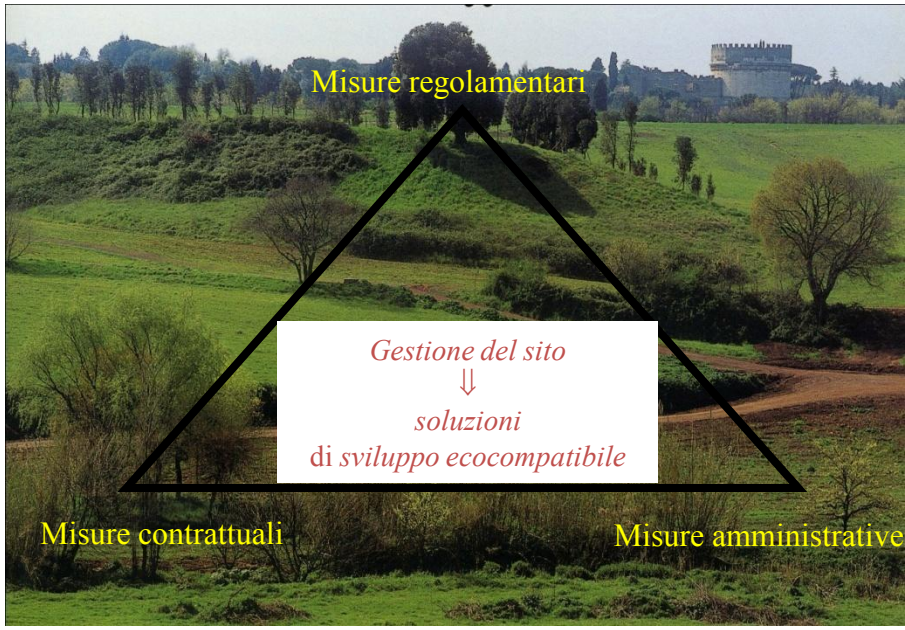
Give value to forests, with the value chain of different ES (from recreation to NWFP to Water)

Integrate where possible, exclude only if necessary

Localize and prioritise measures to meet owners needs, public and private, selecting beneficiaries

To fight fragmentation of external policies and enhance the great potentiality of forest sector, revisiting the connection between regional authorities and EU forest policies, stimulating soft tools

Be prepared for disturbances increase, from fires to disease to storm



THANK YOU FOR YOUR ATTENTION…

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