



Rome, 23rd June 2011
Parallel Session

Present and future role of forest resources in the socio-economic development of rural areas

Parallel Session 1

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

High nature value forest areas: a proposal for Italy based on national forest inventory data

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What are “High Nature Value” forest areas?





Quercus frainetto high forest

Old-growth stages of coppices and chestnut woods



“High Nature Value forestry”

Natural forests and those semi-natural forests where the management (historical or present) supports a high diversity of native species and habitats and/or which support the presence of species of European, and/or national, and/or regional conservation concern (Beaufoy & Cooper 2008).

Criteria for the definition of HNV-forests:

- a) Natural and semi-natural forests.
- b) Management which supports high native species or habitat diversity.
- c) Species of conservation concern.

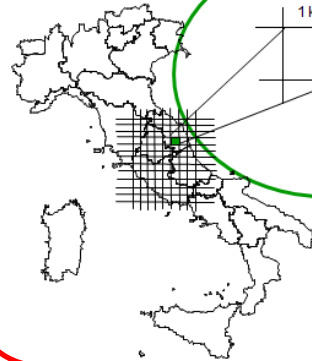
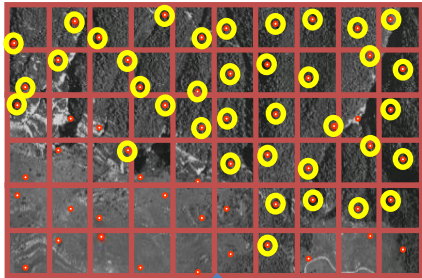
Forest data sources and definitions

National forest inventory (INFC) - Data of sampling points selected on the basis of a three-phase sampling strategy (Tabacchi et al., 2007).

- (a) Statistical sampling and homogeneous analysis throughout the Italian territory.
- (b) Information consistent with international standards (FAO and MCPFE).
- (c) Detailed forest classification.
- (d) Possibility of repeating the inventory collecting updated information.
- (e) The data referring to single points cannot be used to map HNV forests.



Phase 1



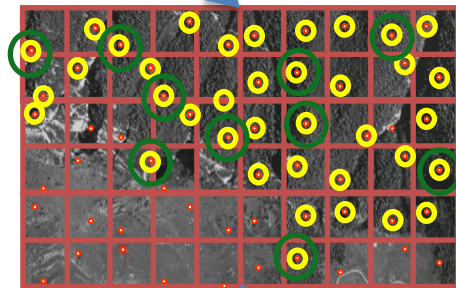
Photointerpretation

Raw
Forest/NonForest
discrimination
(Forest+OWL)

~300,000 sampling points
Tessellation stratified sampling

**Italian NFI -
Sampling
design**

Phase 2

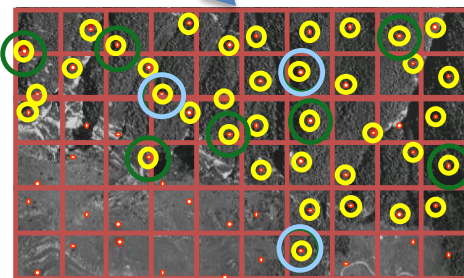


1° Field Survey

Accurate Forest/NonForest
discrimination (Forest+OWL)
Forest category classification
Qualitative assessment

~30,000 sampling points
from Forest + OWL strata

Phase 3



2° Field Survey

Quantitative
measurements

~7,000 sampling points
from Forest category
strata



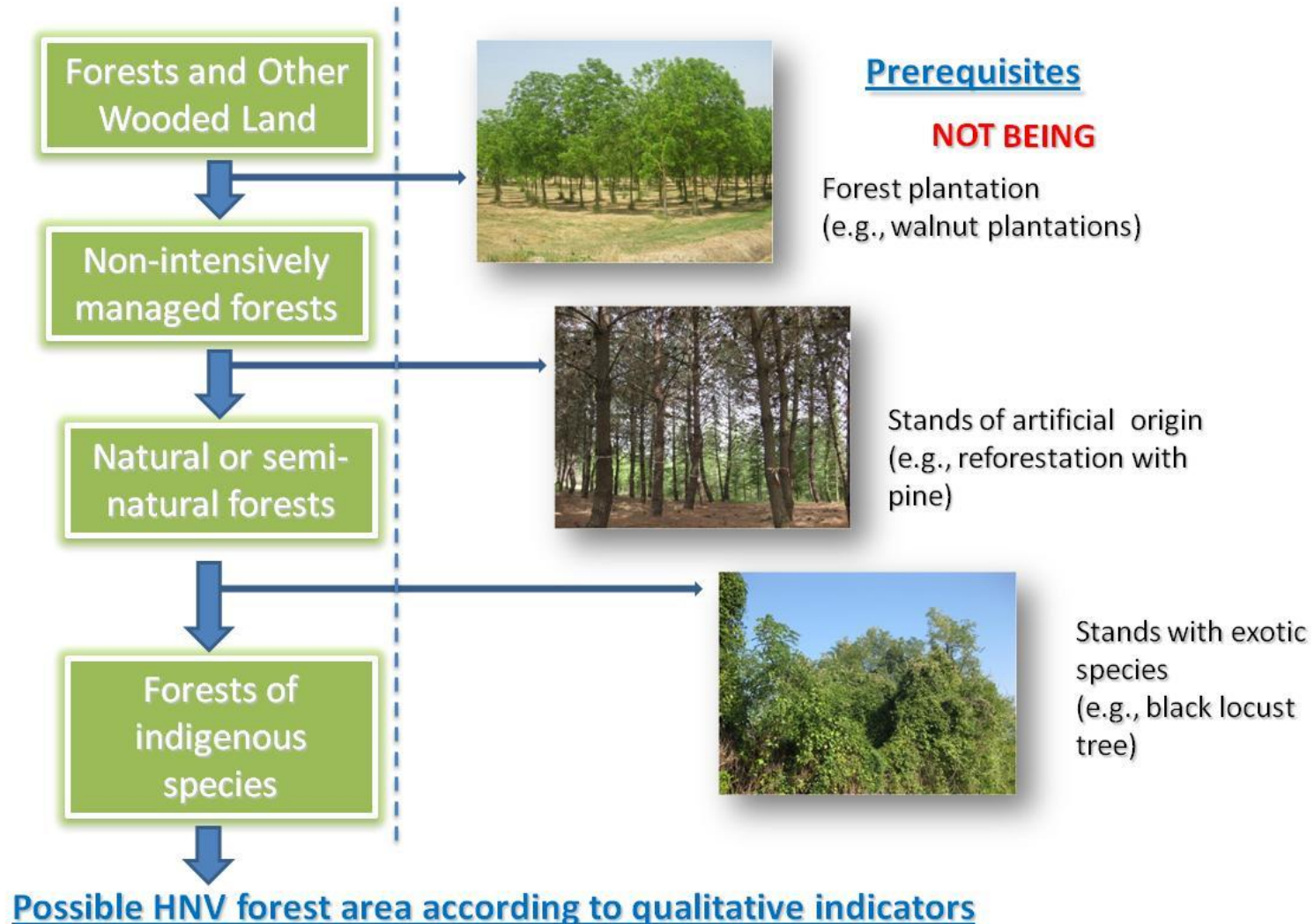
Ministerial Conference on the Protection of Forests in Europe

MCPFE - SFM indicators

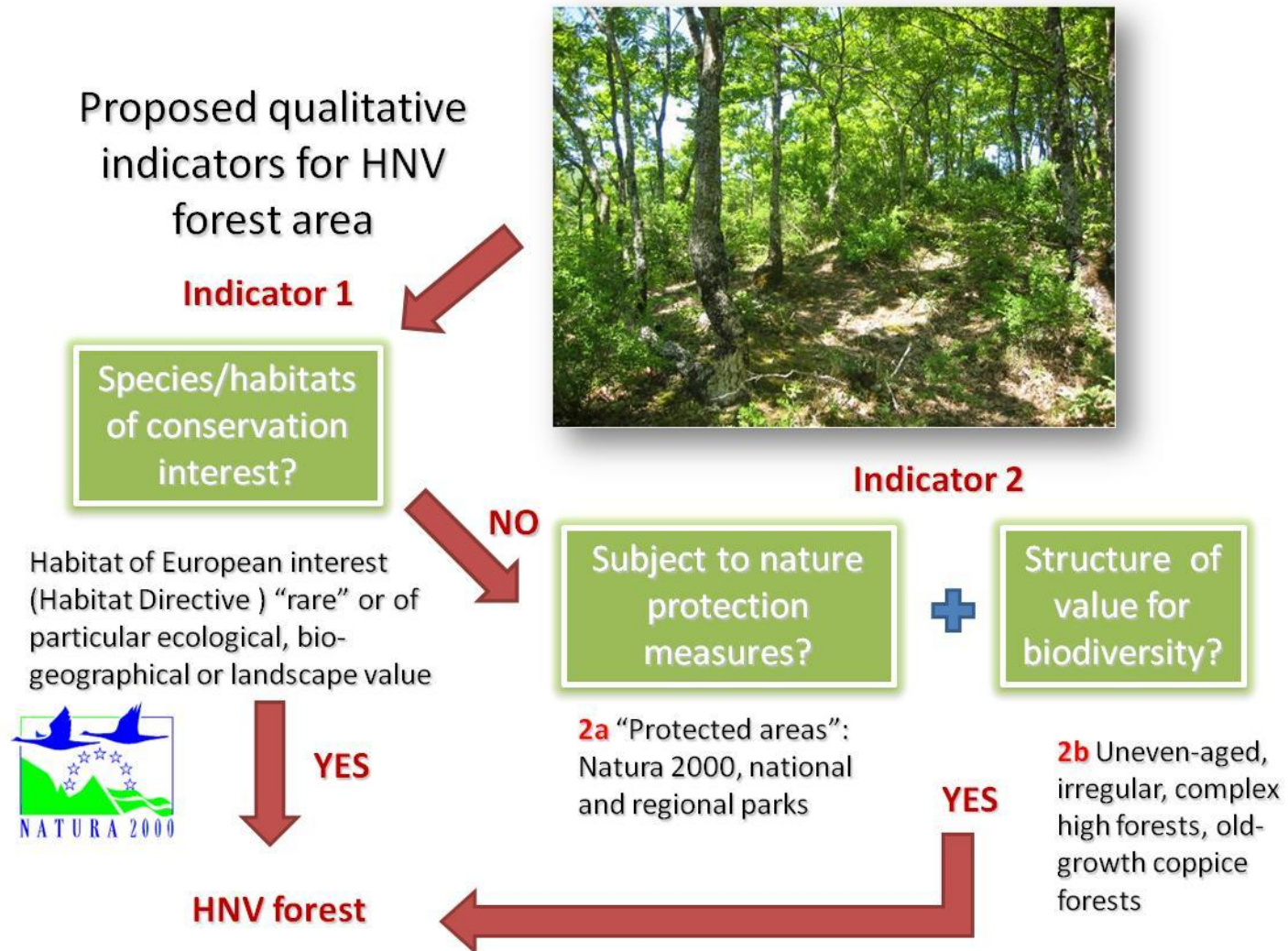
Sustainable Forest Management monitoring system

MCPFE indicator	INFC attribute	Possible use for the estimation of the HNV forest area
Naturalness (4.3)	Forest category	Makes it possible to distinguish natural and semi-natural forests from plantations.
Introduced tree species (4.4)	Forest sub-category	Makes it possible to distinguish forests made up prevalently of autochthonous species.
Regeneration (4.2)	Origin of the stocking	Makes it possible to distinguish natural or semi-natural forests from reforestation and forestation
Protected forests (4.9)	Protected areas	Meets the criterion of presence of species that are particularly valuable for the preservation of biodiversity
Dead-wood (4.5)	Stand development stage	The volume of dead-wood is one of the parameters advised by the EC. Information about this indicator have been drawn from the 2 nd phase INFC attribute “stand development stage”.
Specific composition (4.1)	Forest sub-category	Tree diversity, though not a parameter advised by the EC, is deemed of considerable importance. Information about this indicator have been drawn from the 2 nd phase INFC attribute “forest sub-category”.

Classification procedure of a INFC point



Qualitative indicators for HNV forest area

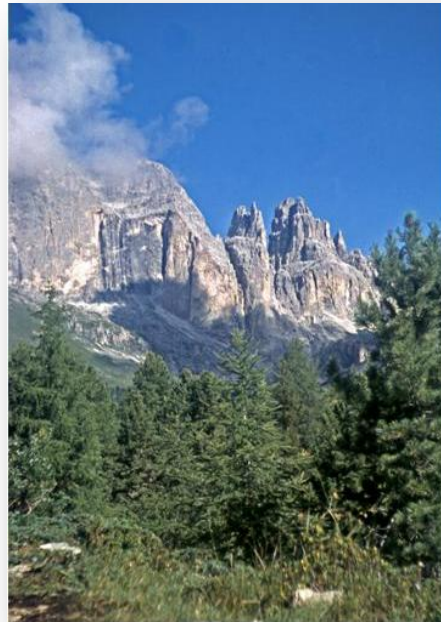


Some examples for HNV forests in Italy



Habitat of
conservation
concern

*Pioneer Larix-
Picea woodland*



Habitat of
conservation concern

*Sub-alpine Pinus
cembra woodland*



High diversity
forest stand

*Old-growth
alluvial plain
forest*

Some examples for HNV forests in Italy



Habitat of conservation concern

Apennine beech forest with Abies alba



Forest habitat with vegetation of endemic character

Quercus trojana woodlands



High diversity forest stand

Old-growth Quercus cerris forest

HNV forests in Italy

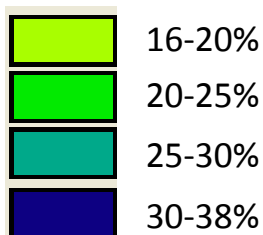
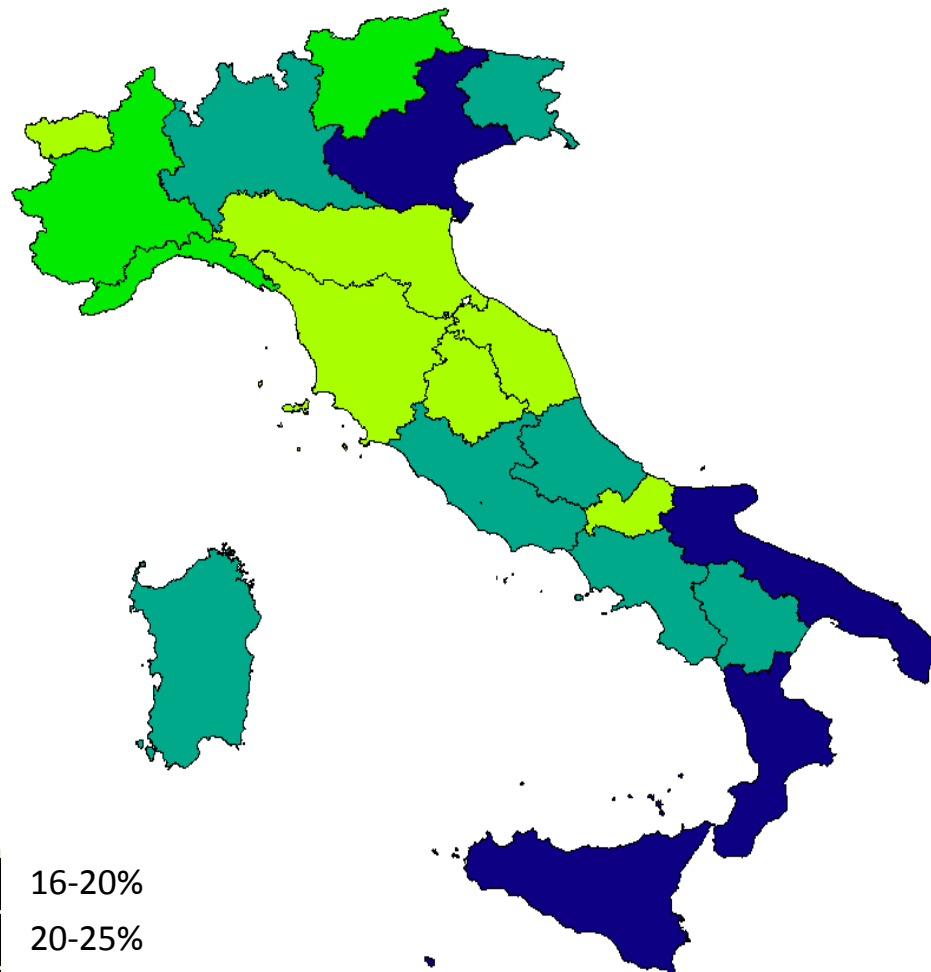
HNV forest area
(hectars)

2.259.066

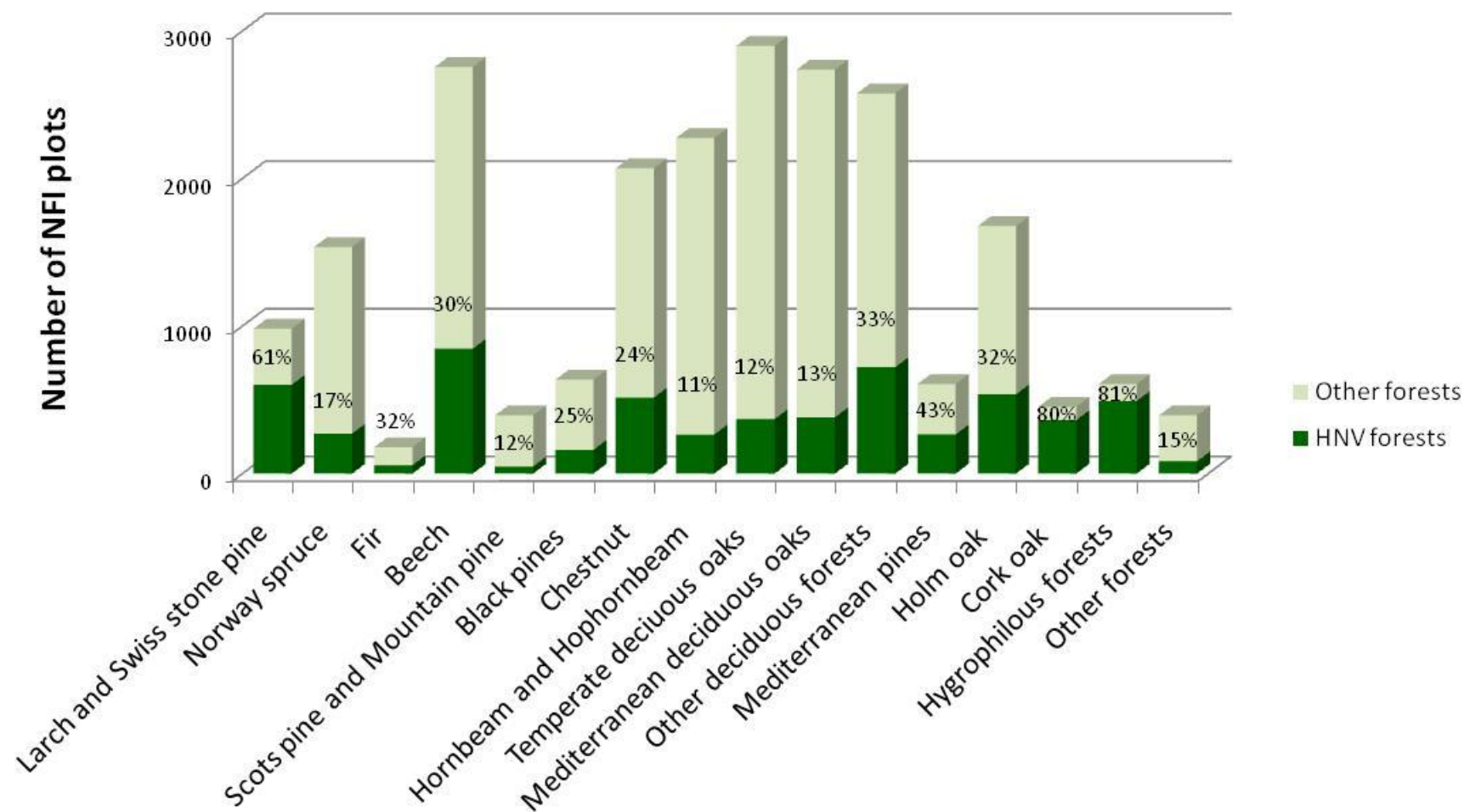
S.E. %

1,2

26% of the forest area



HNV forests in NFI forest types



High Nature Value forestry in Italy

A procedure starting from indicators acknowledged at international level (MCPFE). Use of data collected according to homogeneous criteria for the whole national territory (INFC).

Classification criteria do not preclude a subsequent analysis on territorial distribution of HNV forests (i.e. through forestry planning data).

“High nature value forests” based not only on the presence of species or habitats of conservation concern, but also on elements of “low-intensity management”, as the case of close-to-nature silvicultural systems.



Thank you for your attention!