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Interactive session: The future of Mediterranean forests deriving from coppices: the contribution of the LIFE FutureForCoppices project

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Why coppices



- Coppices cover more than 23Mha in Mediterranean countries
- In Italy they represent 42% of the total forest area
- Relevant component of the economy of mountain rural areas: firewood and other valuable ecosystem services
- Scarcely considered in the sustainable forestry management (SFM) scenarios

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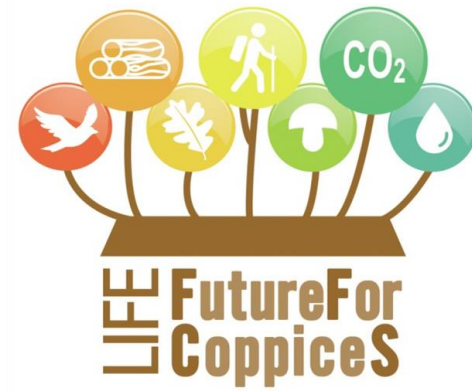


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Why F4C



- To compare the sustainability of the different coppice management systems through long term experiments (**up to over 60 years old**)
- To Test, demonstrate and disseminate the value of SFM indicators
- To synthesize and upscale the results at broader geographical scales

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Three management options

natural evolution



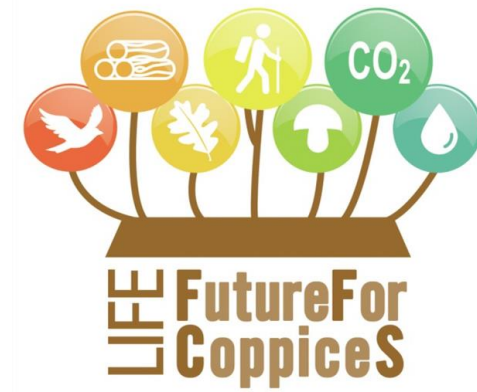
managed coppice



conversion to high forest



Three forest types in 2 regions 45 plots



Evergreen broadleaved forest



Mountain beech forest



Deciduous thermophilous broadleaved forest





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ENHANCEMENT OF FOREST RESOURCES CONTRIBUTION TO GLOBAL CARBON CYCLES

Growing stock
Age structure and/or
diameter distribution
Carbon stock
Total aboveground tree biomass⁽¹⁾
Growth efficiency⁽¹⁾



MAINTENANCE OF FOREST ECOSYSTEMS' HEALTH AND VITALITY

Deposition of air pollutants
Soil condition
Defoliation
Forest damage
Tree growth⁽¹⁾
Mortality rate⁽¹⁾
Chlorophyll a fluorescence⁽¹⁾
Chlorophyll content⁽¹⁾
Leaf traits⁽¹⁾



PRODUCTIVE FUNCTIONS IN FOREST MANAGEMENT (Wood and Non-Wood productions)

Increments and fellings
Roundwood
Non-wood goods
Increments and fellings at the site level⁽¹⁾
Tree volume increment⁽¹⁾
Marketed mushrooms production⁽¹⁾



BIOLOGICAL DIVERSITY IN FOREST ECOSYSTEMS

Tree species composition
Introduced tree species
Deadwood
Threatened forest species
Higher plants species diversity⁽¹⁾
Epiphytic lichens⁽¹⁾
Fungi and mushrooms⁽¹⁾
Forest breeding birds⁽¹⁾



MAINTENANCE AND APPROPRIATE ENHANCEMENT OF PROTECTIVE FUNCTIONS IN FOREST MANAGEMENT

Overstorey cover⁽¹⁾
Understorey cover⁽¹⁾
Ground litter depth⁽¹⁾
Bryophyte ground cover⁽¹⁾
Flood retention⁽¹⁾



MAINTENANCE OF OTHER SOCIO-ECONOMIC FUNCTIONS AND CONDITIONS

Contribution of forest sector to GDP
Net revenue
Energy from wood resources⁽¹⁾
Accessibility for recreation⁽¹⁾
Forest sector workforce⁽¹⁾
Trade in wood⁽¹⁾



40 SFM
indicators
grouped into
6 criteria

Outcomes

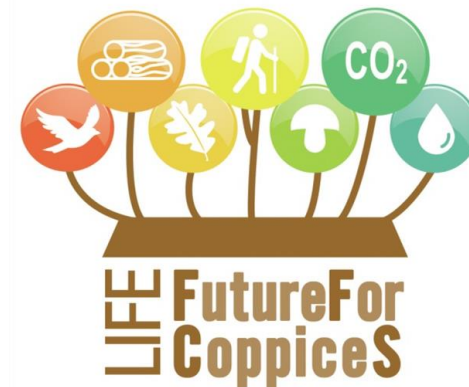
- An open access online database (soon available at www.futureforcoppices.eu)
- A selection of most effective indicators
- Stakeholder engagement
- Spatial model implementation and maps at regional, national and European scales
- New guidelines for the SFM of agamic regenerated forests in S-Europe



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