

Preliminary inventory of research sites for Italy

Project	Main characteristics and contents	Location	start	until	data back	facility size**	field of interest				Priority Res. Areas				Collaboration/Networks
							MF	LT	LU	SD	BGC	BD	L&ED	S-E	
							multi-functionality	long-term trends	land-use & landscape	stochastic disturbances	biogeochemical cycling	biodiversity	landscape & ecosystem dynamics	socio-economics	
Natural Reserve of Castelporziano	Natural reserve close to Rome, belonging to the State. Monitoring and research project is running since approx. 10 years with measurements on a number of different forest and mixed systems, water table dynamics, climate, interactions between vegetation and fauna, remote and proximal sensing data, hydrology, biomass, ecophysiology. In 1996, a flux tower of the EUROFLUX project was installed on a Quercus ilex forest (CO2 exachnage at canopy level). Available forest types: <i>macchia</i> , Quercus ilex stands, flodplain forest patches (deciduous oaks and other species), pine plantations of different ages. Other land-uses presents.	Central Italy, Latium	1990	ongoing	1970	A		X	X			X		X	CarboEurope cluster of project, National Research Council, Agency for Environment and Energy, National Forest service

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Collelongo research area	Area studied intensively by 10 years. Research mostly conducted on beech forests in different forest structures. Long-term research site (ecology and silviculture) in a beech stand, since 1991 (CO ₂ fluxes and processes since 1993). Another flux station established in a grassland in 2002. The site is currently part of the CARBOEUROPE, GTOS and ICP-Forest/ICP-IM networks. In the area there are different land-use patterns (coppice and high-stand forests at different elevations, pastures, meadows, range agriculture, small specialized plantations, area with succession dynamics) and linkage with the socio-economy are established (use of wood by the local population, recreation, rural traditions).	Central Italy, Abruzzo	1990	ongoing	1985	A	X	X	X			X	X	X	X	CarboEurope cluster of project, National Research Council, Focal point of ICP-Forest, National Forest Service, Regional Agriculture and Forestry Agency
Natural Reserve of San Rossore	Site has been studied in the past for the impact of polluted marine aerosol on coastal vegetation. It is now part of the CARBOEUROPE network, canopy fluxes of a pine stand are measured together with ecological parameters. Some of the investigation are also performed on a chronosequence of pine stands to understand which are the age effects on primary productivity. A number of land-use patterns are present. Area is suited for landscape scale research, some of which as been already performed. The site is a core-site for remote sensing activities	Central Italy, Tuscany	1999	ongoing	1980	A		X	X			X		X		CarboEurope cluster of project, National Research Council, Regional Agriculture and Forestry Agency, Joint Research Center
Forest sites in the Paneveggio Area	In this area, a number of forest sites are studied along an altitudinal gradient (University of Florence, University of Turin) in terms of responses to climate (dendrochronology), productivity, establishment of seedlings, climate. Mostly coniferous species from pure Norway spruce stands at lower elevation to mixed stands at higher elevation. Studies at the tree line have been initiated.	North Italy, Trentino		ongoing		A	X	X				X		X		

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Area around the experimental catchment of Bonis River	In the south of Italy (Calabria), the Forest Ecology and Hydrology Institute (IEIF) of the Italian National Research Council (CNR) investigate the interactions between silvicultural treatment methods and water balance in the Bonis catchment (139 ha, 80% covered by pine plantations), gauged since 1984. Climate and hydrological parameters are recorded at the watershed level with planted and natural pine stands in a Mediterranean climate. Studies address the effects of forest cover and silvicultural treatments on hydrological balance. The institute studies also ecosystem functionality and microclimatic changes in other forest type (natural and planted conifers and hardwood) in the region.	South Italy, Calabria	1984	ongoing		A	X	X	X	X	X			X		
Forest sites and plantation in the Viterbo Province	In the area close to Viterbo, a city 80 km North of Rome, the Dep. of Forest Environment and Resources of University of Tuscia has established in the last 15 years a number of experimental sites, ranging from coastal macchia ecosystem, to Quercus cerris coppice chronosequences, specialized poplar plantations and forest structural and successional studies in a Regional Reserve (Monte Rufeno). In two sites, the responses of tree vegetation to global change (elevated CO2) is studied. The site are sparse in the province landscape. Possibilities of cross-cutting issues according to ENFORS criteria.	Central Italy, North Latium	1985	ongoing	1985	A to B	X	X	X		X	X	X	X	CarboEurope cluster of project, National Research Council, Regional Agriculture and Forestry Agency, Regional Park of Monte Rufeno, Electric Board	
MEDCOP (Improvement of coppice forests in the mediterranean region)	Network of 11 permanent experimental plots on Q ilex forest in Sardinia. Silviculture (coppice conversion to high forest), growth, litterfall, climate, ecophysiology.	Sardinia	1994	ongoing		B	X	X			X	X	X			

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Turkey oak coppice valorisation	Network of 14 permanent experimental plots on Q cerris forest in Tuscany. Silviculture (stool resprouting, standards, coppice conversion to high forest), growth, litterfall, climate, ecophysiology, game management	Central Italy, Tuscany	1972	ongoing		B	X	X	X			X	X	X	X	
Forest dynamics in stands under natural evolution	Network of 10 permanent experimental plots on F. sylvatica, Q. cerris and Q. ilex forests in Tuscany, Molise and Apulia. Stand dynamics, growth, litterfall, natural regeneration, gaps.	Central and South Italy	1990	ongoing	1952	B		X		X			X			
Improvement of mediterranean pine forests functionality	Network of 10 permanent experimental plots on P.pinea forests under different management systems in Tuscany and Latium. Silviculture (thinning), stand dynamics, growth, natural regeneration, restoration, wildfires, climate, game management	Central Italy	1984	ongoing		B	X	X					X	X		
ICP-Forest level II network	26 forest sites of the main italian tree species Detailed monitoring data starting from 1995-96. 10 sites have also meteorological data. Chemistry, growth, etc.	Italy	1995	ongoing	1995	B		X				X		X		
Cinque Torri experimental site	The site is managed by University of Padova with research on the responses of forest stand and isolated trees at the timber/treeline to climate and climate changes	North Italy, Veneto	1990	ongoing		C		X				X		X		

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