















LIFE+MGN
making good natura



Scientific and administrative lead institution		Project		In collaboration with	
		Making public good provision the core business of Nature 2000		WWF Italy EURAC <i>(European Academy of Bolzano)</i> WWF Research and Projects Parco Nazionale del Pollino Parco Nazionale del Cilento, Vallo di Diano e Alburni Parco Interregionale del Sasso Simone e Simoncello Sicilian Region (State Forests' Regional Department of the Regional Body) The Region Lombardy ERSAF (Lombardy's Regional Agency for Services to Agriculture and Forests)	
Scientific partners		Life+ code LIFE11 ENV/IT/000168			
  		Life+ component Environmental Strategy and Management			
Local partners		Length 4 years (2012 - 2016)		Regions involved Basilicata Calabria Campania Emilia Romagna Marche Lombardia (Lombardy) Sicilia (Sicily)	
  		Project Lead Authority CURSA Consorzio Universitario per la Ricerca Socioeconomica e per l'Ambiente <i>(The University Consortium for Socioeconomic and Environmental Research)</i>		Biogeographical regions Mediterranean Alpine Continental	
  		Partner Authorities WWF Italy EURAC <i>(European Academy of Bolzano)</i> WWF Research and Projects Parco Nazionale del Pollino Parco Nazionale del Cilento, Vallo di Diano e Alburni Parco Interregionale del Sasso Simone e Simoncello Regione Sicilia <i>(Sicilian Region)</i> <i>(State Forests' Regional Department of the Regional Body)</i> Regione Lombardia <i>(Lombardy Region)</i> ERSAF <i>(Regional body for Agriculture and Forests of Lombardy)</i>		The project Life+ Making Good Nature is co-sponsored by the European Commission through the Life+ programme	
Co-Sponsors		Number of pilot sites from the Nature 2000 Network 21		Scientific coordinator David Marino	
 		Territorial surface 90,239 hectares		Curators Caterina Caracausi Armando Mangone	
		LIFE+ Contribution € 1,863,441 Equal to 49.95% of the total		Graphics Antonella Pizzetti	
		Total estimate € 3,751,684		Translator Chiara Sfregola	
		Co-Sponsors The Ministry for the Environment Land and Sea The Ministry for Agricultural and Forestry Food Policies		Cover photo Stefano Picchi	
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Biodiversity is the foundation of our economy and our unique quality of life, providing services that at the moment are not yet adequately recognized within the economic system. Even in the context of the current crisis, our high quality manufacturing continues to prove itself in international markets, precisely because it pursues the values of quality and beauty that are evocative of our national local treasures.

In agreement with the international guidelines of the Convention on Biological Diversity (CBD) and also the EU Biodiversity Strategy to 2020, Italy is actively involved in the safeguard of biodiversity. On October 7th, 2010, an important step towards a greater awareness of the importance of biodiversity has been made with the adoption of the National Strategy on Biodiversity. This document, while recognizing the intrinsic value of natural capital, represents an important tool to ensure concrete integration between the development of objectives of the country and the protection of its priceless heritage biodiversity.

“Biodiversity and ecosystem services are our natural capital, and are preserved, valued and, insofar as possible, restored for their intrinsic importance so that they can continue to support lasting economic prosperity and human welfare, despite deep changes taking place globally and locally”. This vision has guided the work of the Ministry of the Environment to promote and support a number of important initiatives to fully maximize ecosystem services and to better address the on going environmental and economic changes, by optimizing synergies between sectorial policies and environmental protection.

In the context of the National Strategy, it has been established an environmental accounting system of the protected areas, starting from an integrated and coordinated survey of the actual natural heritage found in our National Parks. The result is significant. National Parks are representative of the unique natural wealth of our country and the natural level of preservation and protection in our parks is more concrete and effective than in non protected areas.

The Life “Making Good Natura” Project is a positive initiative supported and co-sponsored by the Ministry, with the aim to create systems in order to evaluate the ecosystem services provided by the Natura 2000 Network. The project will also identify governance mechanisms to improve the effectiveness of the management for biodiversity preservation and promote the use of innovative financial mechanisms in support of biodiversity, as reaffirmed in the Strategy for Resource Mobilization of the CBD.

In Europe this initiative is linked to MAES process (Mapping and Assessment of Ecosystem and their Services) that, in response to action #5 of the European Biodiversity Strategy to 2020, involves the Member Countries in a mapping and assessment action of the conditions of ecosystems and their related services.

The aim of the participation in the LIFE Project of the Parchi Nazionali del Pollino e del Cilento, Vallo di Diano e Alburni, is to coordinate the path started on the environmental accounting of protected areas. It will be also able to provide a useful contribution to the recognition of the role of the park system in maintaining services provided by biodiversity, as well as indicating the way of identifying innovative financing mechanisms for nature preservation based on economic recognition of our natural capital.

Renato Grimaldi

Director General of the Ministry of Environment, Land and Sea

Directorate-General for Nature and Sea Protection

The importance of rural areas for the safe guarding of ecosystem services through the preservation of both domestic (animal species, plants, varieties and breeds) and wildlife biodiversity is shown by 92% of European territory occupied by rural areas and by about 50% of the animal species endangered or in decline, in part because of agricultural environment.

In Italy, high natural valued farmland concerns 44.3% of the UAA (source: INEA, 2010). Therefore, agriculture clearly contributes to preserve many species and habitats that would otherwise disappear with the abandonment of certain farming activities. The fact that some ecosystems are at risk of extinction, due to the abandonment of forms of agriculture that support important types of biodiversity, has shown that the suspension of specific agricultural practices is detrimental for semi-natural ecosystems as much as intensive production.

The need to maintain traditional agricultural practices, usually in marginal areas, to preserve biodiversity and the landscape, correlates environmental sustainability with the economic sustainability of Italian and European agriculture. The costs of productions of goods and services of public interest, directly related to nature preservation, care for hydrogeological balance, safekeeping of the landscape, and preservation of social and welfare services as part of the expansion of the multifunctional agricultural tradition, cannot be a financial burden exclusively of individual farms. Therefore, it is necessary to create the best conditions to encourage proper economic recognition of the agricultural activities that can reinforce ecosystem services in these areas where they are implemented. In this sense, the definition of possible models for the application of Payments for Ecosystem Services (PES) in the agricultural sector could provide an important contribution. The CAP direct payments are already a form of payment for environmental services assumed by agriculture conditioned (cross compliance) to comply with certain environmental standards.

The greening practices introduced by the new CAP will further strengthen the presence of mechanisms very similar to the PES as the main European instrument for economic support to our agriculture. Similarly, many of the measures in the new EU Regulation for Rural Development confirm support to agricultural practices and forest management more aware of biodiversity preservation. The LIFE+ MAKING GOOD NATURA Project intends to further enhance the ecosystem services provided by Natura 2000 Sites, characterized by the presence of habitats that are dependent on agricultural activities and forest management. The expected results to this project, also supported by the Ministry of Agriculture, Food and Forestry as a co-sponsor, will provide a useful contribution for additional recognition of the role of agricultural and forest activity in maintaining services provided by biodiversity to our society. If the multifunctional role of agriculture plays a more important role in the future, payments for environmental, landscape and cultural assets will be much more than what the value of the material produced by agricultural enterprises is today.

Giuseppe Blasi

Head of Department of European and International Policies and Rural Development

Ministry of Agriculture, Food and Forestry Policies Common agricultural policy



Prof. **David Marino**,
head of the project Life+Making Good Natura
for the lead agency, CURSA.

As scientific coordinator of several national
and European projects
for evaluating the effectiveness of protected areas,
he has developed methodologies recognized by
the International Union for Conservation of Nature IUCN,
in addition, he has worked on ecosystem
services in agricultural areas.

¹ Among the signatories, eminent names such as Nobel Prize
winners Kenneth Arrow of Stanford University,
Robert Solow of the Massachusetts Institute of Technology,
and Joseph Stiglitz of Columbia University.

In 2012, more than 100 economists and scholars from various sectors and different nationalities signed and sent a letter to the President of the United States Barack Obama, calling for the establishment of new protected areas for the critical role they play in the safeguard of biodiversity and in the provision of ecosystem services, contributing significantly to social well-being.

This approach, typical of **ecological economics**, stemming from the debate around the value of nature, goes back to the '70s and reached its turning point in the famous article by Robert Costanza called The Value of Ecosystem Services and Natural Capital, Nature 387, 1997, which kick-started a new wave of studies on the evaluation of **natural capital** and the extent of the flow of services from which the ecosystem services originate.

These are the two key elements of **environmental-economic accounting** that go beyond traditional indicators of wealth, such as GDP, due to their inability to read the level of well-being. Through a system of accountancy that brings together the environment, both in its physical and ecosystem sense, with the human society, what is measured is the consistency of the natural capital and its value. The fluxes that originate between the two systems - the benefits that the human society receives from the environmental system and the damages that some human activities produce on the environment - in the same way, will affect people. In the absence of an accounting system, Governance is extremely uncertain and the decisions of the policy makers will not be able to evaluate the effects of policies on human well-being. Hence, the first step is to compare the **costs and benefits** of policies conservation of natural capital.

For example, the loss of biodiversity, at a global level, has high costs that have consequences on the entire global economy through the damage to individual economies, to the economic outcome and to the ability to fight poverty. This is what has emerged from the latest reports of the European Commission, which estimate that by 2050 the economic loss due to depletion of ecosystem services, will reach \$19 billion. According to the TEEB (The Economics of Ecosystems & Biodiversity), such damage will impact the global economy by about 10% of the annual GDP.

Benefits are the second elements, that is, the Ecosystem Services. Water, for example, is a natural resource with enormous social and economic value that affects the production. (e.g. irrigation or the mineral water industry), as well as services derived from forests (e.g. raw materials, non-wood products, absorption of carbon dioxide). Another important example is multifunctional agriculture that produces food, biodiversity and social services. Even the landscape and biodiversity have economic value, as is the case of the alpine landscape. The ski slopes and other infrastructures would not explain the success of tourism if it were not for the environmental quality where they are located. Therefore, the link between environmental assets and ecosystem services is a real and, in economic terms, we can state that the environment is a condition for the economy. An array of benefits and diversified services derive from the preservation of ecosystems and habitats, which is the direct objective of the Natura 2000 Network.

This is the context in which the LIFE+ MAKING GOOD NATURA project takes shape and is carried out. It is a Governance proj-

ect because mapping and quantification of ecosystem services are the first essential step, and environmental-economic accounting is able to provide us with a picture of the consistency of natural capital and the costs and benefits associated with it. The ultimate goal of the project is to provide ideas and innovative tools for better Governance of Natura 2000 Sites.

Among these, in recent years, economic incentives based on PES (Payment for Ecosystem Services) have become available. Through them the user (or beneficiary) of an ecosystem service makes a direct payment for the provision of a service. Over the years, funding methods have greatly increased and, today, there are more than 300 programs in place at the global, national and local level. In a complex society with diffused property rights as they are articulated in Italy, the involvement of the stakeholders is a critical step. For example, the introduction of PES would allow agro-forestry companies, located in agricultural areas with high ecological value and characterized by low productivity, to increase their source of income. Consequently, through such incentives, farmers would be encouraged to maintain and improve agricultural practices, contributing to halting the loss of biodiversity. In this way, the protection and preservation of habitats and species would allow the functionality of ecosystem services resulting in socio-economic benefits for the community.

The last step of this process - and final goal of LIFE+ MAKING GOOD NATURA project - is the evaluation of effectiveness. The measurement of costs and benefits resulting from preservation actions allows it to evaluate the effectiveness of public policies towards human well-being.

THE LIFE PROGRAMME AND THE NATURA 2000 NETWORK

The Life+ MAKING GOOD NATURA programme financially supports the conservation of biodiversity and the preservation of the habitats within the European Ecological Natura 2000 Network.

THE LIFE PROGRAMME

Launched in 1992, LIFE is the most important programme of economical support for the implementation and update of policy and legislation in the environmental sector. In the twenty years since its launch, the LIFE programme has involved over 3700 projects and invested 2.8 billion, mainly for the conservation of habitats and animals species and plants under the Habitats Directive 92/43/EEC and Wild Birds Directive 79/409/EEC, replaced by the Directive 2009/147/EC. Structured over the years in four different phases, (LIFE I, LIFE II, LIFE III and LIFE+), the LIFE Programme is divided into two sub-programs. Environment, with three priority areas: **Environment** and efficient use of resources - Nature and biodiversity - Governance and the environment information and **Action for the Climate** which covers the following areas: Mitigation of climate changes - Adaptation to the climatic changes - Governance and information on the climate. The LIFE **Environment Policy and Governance** component, which the LIFE+ MAKING GOOD NATURA project is specifically part of, aims to co-finance pilot projects that contribute to improving European policies through ideas, technologies, methods and innovative instruments.

THE NATURA 2000 NETWORK

According to the Habitats Directive 92/43/EEC, the main instrument of the EU policy is aimed at the preservation of animal species and plant endangered or rare habitats within European Community. It consists of Sites of Community Importance (SCIs) and Special Protection Areas (SPAs), established under Birds Directive 79/409/EEC (replaced by Directive 09/147 EC). The SCIs, identified by the Member States, are subsequently designated as Special Areas of Conservation (SACs), while SPAs are areas pertinent to the conservation of wild birds, and are so defined at the moment in which they are designated by the Member State and recognized thereof by the European Union. The European Union Natura 2000 Network is responsible to ensure biodiversity through conservation measures of natural and semi-natural habitats of animal species and plants, and endangered or rare habitats in the EU. The objective of LIFE+ MAKING GOOD NATURA is to create the necessary conditions for achieving effective management of habitats, of animal species and plants by providing administrators of Natura 2000 Sites with management and self-financing tools for protection activities.

After 21 years of commitment and success, the LIFE program is the most important EU initiative support of the Environment and Biodiversity.



Natura 2000 Network in Italy

The Natura 2000 Network in Italy includes almost 2900 locations from three bio-geographical regions: Alpine, Continental and Mediterranean, corresponding to 21% of the entire national territory. The Sites of Community Importance (SCIs), identified by the Regions are 2287 and there are 601 Special Protection Areas (SPAs), 323 of which are type C sites,

SCIs or that coincide with SPAs. In Italy, under the Habitats Directive, the Natura 2000 Sites, in total 132 habitats, 88 flora species and 99 fauna species (21 of which are mammals, 9 reptiles, 14 amphibians, 24 fish and 31 invertebrate) are protected. Furthermore, about 381 bird species are protected, under the Birds Directive, (Source: Ministry of the Environment).



LIFE+ MAKING GOOD NATURA, AN INNOVATIVE PROJECT

The conservation status of European biodiversity within the Natura 2000 Network depends directly on the effective management of local authorities delegated to oversee it.

The research for better management of the Natura 2000 Network, undertaken by the LIFE+ MAKING GOOD NATURA Project, replies to art. 8 of the Habitats Directive on the financing of the Network and, as clearly set out by the priorities of the LIFE programme, the EU, after an initial phase of assistance, will delegate the economical financing of the Natura 2000 Network sites to local management agencies.

Making Good Natura is an innovative LIFE+ project with three main aspects: It elaborates governance models designed to manage the effectiveness of the Natura 2000 Sites through payments for ecosystem services and self-financing mechanism.

It develops methods for identification, analysis and measurement of ecosystem services in agro-forestry sites.

It contributes to make more aware of the inseparable relationship between ecosystem services and human well-being by policy makers and local communities. Based on the MEVAP methodology (Monitoring and Evaluation of Protected

Areas) developed by CURSA, Making Good Natura develops methods for identification of ecosystem services through a research and policy phase (TEEB, UK National Ecosystem Assessment, IEEP, etc.) to an application of the theory at local level to guide the individual managing agencies of the Natura 2000 Network Sites towards effective environmental and economic management.

The mix of economic and ecological crisis makes the technical and financial tools available inadequate for managing authorities of the Natura 2000 Network. The solution? An alliance between scientific knowledge and involvement of local stakeholders.

The EU is proceeding through guidelines issued for the preservation of ecosystem services to map and assess the state of ecosystems and the value of the services they provide throughout Europe. The guidelines aims are to preserve and enhance ecosystems and their related services through green in-

frastructures and the restoration of at least 15% of degraded ecosystems; to increase the contribution of agriculture and forestry to maintain and strengthening biodiversity; to create a Task Force for the Mapping and Evaluation of Ecosystem Services [MAES]; to create a single timeline at the European level and a common Agricultural Policy for the period 2014-2020; to create a Rural Development Policy and a new strategy for forests and the forestry sector.

However, despite several recommendations, there are no quantitative data for such services. With awareness of the cost, such assessment would allow managing authorities to more easily find resources understanding expenses to contribute to the protection of ecosystems in accordance with the Habitats Directive.

The LIFE+ MAKING GOOD NATURA project was founded with the objective of implementing methods of quantitative measurement of ecosystem services: this initiative contributes to the definition of a sound sci-

entific course, implementable and reproducible in other European countries, which could also provide answers in terms of co-financing

After a first phase of study of the biophysical and socio-economical characteristics of the pilot Sites and the surrounding territories, the LIFE+ MAKING GOOD NATURA Project identifies the ecosystem services of each site by placing them in relation to the habitats of the Natura 2000 Network, the land covered and the directives of the management authorities. The knowledge acquired is discussed and validated during the field phase and the meeting with local stakeholders, based on the Millennium Ecosystem Assessment (2005).

The objective of Making Good Natura is the introduction, of the services generated by ecosystems into the market mechanisms to show the economies and society, the value of natural capital and ecosystem services, creating useful knowledge to pave the way to more targeted and economically optimized solutions..

The public and the policy-makers should become more aware of the economic value of the services and goods provided by ecosystems. Making Good Natura addresses this need by promoting the relationship between Economics and Ecology to various stakeholders.

The publication "Our Natural Capital: a Profitable Investment in Times of Crisis" (WWF, 2012) illustrates how the value of benefits arising from the European Natura 2000 Network is approximately 200-300 billion Euros per year (1.7 to 2.5% of the EU GDP). These data are a powerful issue for raising awareness of the value and importance of the Natura 2000 Sites, both among local managers and among the population, by increasing respect for protected areas and the engagement to protect their environment, also in terms of financial investment.

The sustainable use of natural resources is an issue of global concern: the LIFE+ MAKING GOOD NATURA

Project endorses the programmatic tendencies of the European Commission expected in the seventh European Action Plan for the Environment

The LIFE+ MAKING GOOD NATURA Project develops new paths for environmental governance aimed to protect the agroforestry ecosystems and elaborates biophysical processes, qualitative and quantitative assessment measures of the ecosystems services in the Natura 2000 Network Sites, by providing sites administrator with management and self-financing tools, which represent forms of remuneration for the protection services. The CAP measures adopted to support services in the Natura 2000 Network Sites have not produced the expected effectiveness. The LIFE+ MAKING GOOD NATURA Project aims to remedy such critical issues by providing new governance guidelines to ensure effective management of the Sites, and for this purpose, there is a need to investigate the development of additional and possible application models.



THE ROLE OF STAKEHOLDERS IN THE DEFINITION OF ECOSYSTEM SERVICES AND IN THE LOCAL GOVERNANCE

LIFE+ MAKING GOOD NATURA meets the territories:
the participatory management in the Natura 2000 Network.



The central role of territorial stakeholder and the one of scientific authorities within the LIFE+ MAKING GOOD NATURA Project starts from the awareness that, in order to achieve an effective management of Natura 2000 Network, it is necessary to enable participatory processes for both the structuring of innovative models of governance and for the definition of methods for quantifying biophysical ecosystem services.

Life+ MAKING GOOD NATURA identifies two types of stakeholders:

1. The first is linked to the scientific-institutional sectors connected in what is defined as the Steering Committee
2. The second type concerns the local stakeholders of the Pilot Sites, who play a crucial role in different phases of the project from the analysis of ecosystem services to the demonstration and implementation of the governance model.

The steering committee as a consultative scientific authority of the project.

In addition to the two co-sponsoring ministries, the Ministry of the Environment, Land and Sea and the Ministry of Agriculture Food and Forestry, strategic partners of the project are the stakeholders of the agricultural and forestry sectors (Coldiretti, CIA, Confagricultura, Federbio, AIAB, Federparchi, ISMEA, INEA) and the authorities that, play a role of governance at various levels and

address the policies and territorial programmes (Conference of Regions and Autonomous Provinces, UNCEM, ISNART).

The objective of the scientific community, brought together in the Steering Committee, is to provide useful observations to better target actions and updates the project on regulatory issues, policies, plans and programmes, with which the project could eventually interact. Ultimately, the network contributes to the definition of the governance model, based on payments for ecosystem services and self-financing.

The second type of stakeholders is represented by the territorial participants of the 21 Pilots sites: farms and forestry public utility, tour operators, associations, local authorities, local authorities such as land reclamation authority or mountain community, citizens etc. They get gradually involved by the local bodies and they provide information and suggestions to the payment planning for the ecosystem services that get outlined.

The recognized and respected ERSAF, the Sicilian Region, the Lombardy Region, the Parco Nazionale del Pollino, Parco Nazionale del Cilento, Vallo di Diano e Alburni and the Parco Interregionale del Sasso Simone e Simoncello, as recognized and authoritative legal subjects, represent an important element of

mediation towards approaching and communicating with local stakeholders. The participatory management activities require, right from the beginning, careful preparation and organization, and especially an open-minded approach in order to foresee the necessary adjustments as a result of the application and, in particular, based on the achievement of the prearranged targets.

Meetings with local stakeholders as well as public events are crucial for defining the most interesting ecosystem services for each site. The project holds one meeting for each of the pilot sites during the preparatory phase and other meetings during the field trial phase. Valuable and innovative contributions for identification of the most representative ecosystem services of the sites emerge from an exchange of information and ideas on the environmental aspects and on the socio-economic context of the territories. The results of such meetings will be distributed during public events and, at a later date, cross-referenced with the technical and scientific analysis from the technical staff of the project.

This innovative approach that combines conservation biology with participatory processes (Agenda 21 model) is a bottom-up

approach to encourage stakeholders to be the main players of the project and not just recipients of information or decisions coming from the top. The European Union has reiterated this approach to the preservation of biodiversity through its strategy for biological diversity and the establishment and management of the Natura 2000 Network, implementing the Habitats and Birds Directives, actualized in the field in recent years also by many Life projects that already represents a first repository of good practices on the participation and active involvement of stakeholders in the definition and realization of policies and programmes for the preservation of biodiversity.

Understanding and analysing the diversity of stakeholders and their interests in large territorial areas or individual sites is essential for developing models of governance based on the PES (Payment for Ecosystem Services), as proposed by the LIFE+ MAKING GOOD NATURA project. In conclusion, in order to develop an effective long-term governance of the Natura 2000 Network, there is a need to study and understand the increased availability of local communities to “take care” of the natural resources when conditions are in place so that they can develop their own initiatives and maintain an adequate degree of control over resources and the development processes to satisfy their own needs.

The real heart of the project is the meeting among the territorial stakeholders, the technical staff of the project and the organization's authorities of the Pilot site.

ECOSYSTEM SERVICES AND PAYMENTS FOR THE ECOSYSTEM SERVICES

Water, Oxygen, Biodiversity, Agriculture and Landscape are essential to sustain life, wealth and the economic and social development of society.



As defined by the Millennium Ecosystem Assessment, the Ecosystem Services are the “benefits that people obtain from the ecosystem.” The document divides the ecosystem functions into four main categories.

PROVISIONING

This function gathers all the services produced by natural and semi-natural ecosystems such as food, drinking water, fiber, timber and medicinal resources.

REGULATING

These services primarily include those functions that ecosystems perform by adjusting air quality, carbon storage, the cycle of waste and substances in decomposition and creation of organic matter, erosion prevention, maintenance of soil fertility and pollination.

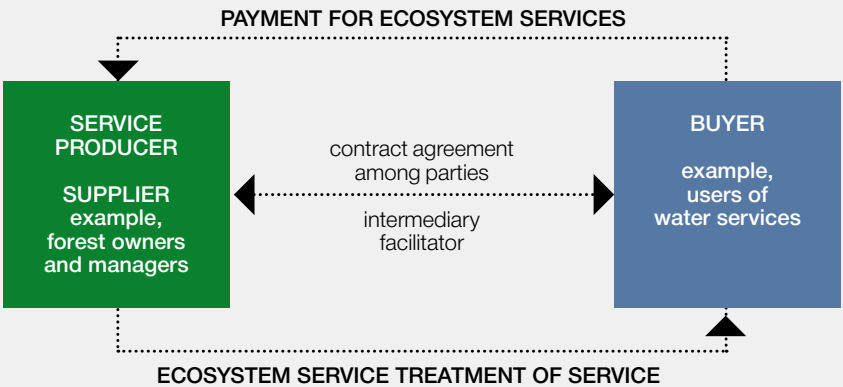
SUPPORTING

They represent all the services necessary for the production of all other ecosystem services: animal biodiversity, plant habitats and evolutionary processes.

CULTURAL

Natural ecosystems contribute to create human civilizations through spiritual enrichment, cognitive development, artistic experience and tourism.

Despite humanity drawing all their wealth from ecosystems, its real value in the long term is not included in the economic forecasts of society. Forms of production and consumption of resources lead to a rapid degradation of the natural environment and the alteration of the ability of ecosystems to provide services essential to life. To respond to this emergency, Making Good Natura promotes Payments for Ecosystem Services, as an innovative tool of governance for greater effectiveness in the preservation of ecological systems and the services they provide in Natura 2000 Network sites. Payments for Ecosystem Services can be considered incentives and market mechanisms designed to translate environmental values into real financial incentives for local players so that with voluntary certifications, good practices and environmental communication, they promote and support the maintenance of multiple ecological functions provided by biodiversity and natural capital.



A concrete example of Payment for Ecosystem Services is the freely subscribed agreement between the municipal company for the provision of water services in the city of New York and the forest owners in the catchment basin. Under this agreement, the owners have pledged to manage their woodlands according to a specific forest management programme compatible with maintaining the quality and the quantity over time of the water flow downstream. The compensation for the maintenance of the ecosystem service (drinking water) provided to the urban population by forest managers is paid through a surcharge on the water tariff, which is paid by the final users. The adoption of the programme has prevented the construction of water treatment facilities and, at the same time, forest owners are guaranteed an annual and steady income.

LOGICAL OUTLINE OF THE PROJECT

Life+ MAKING GOOD NATURA project is organized in preparatory, applicative, demonstrative actions, and in conclusion in a production phase of the processed data for the transfer of results.

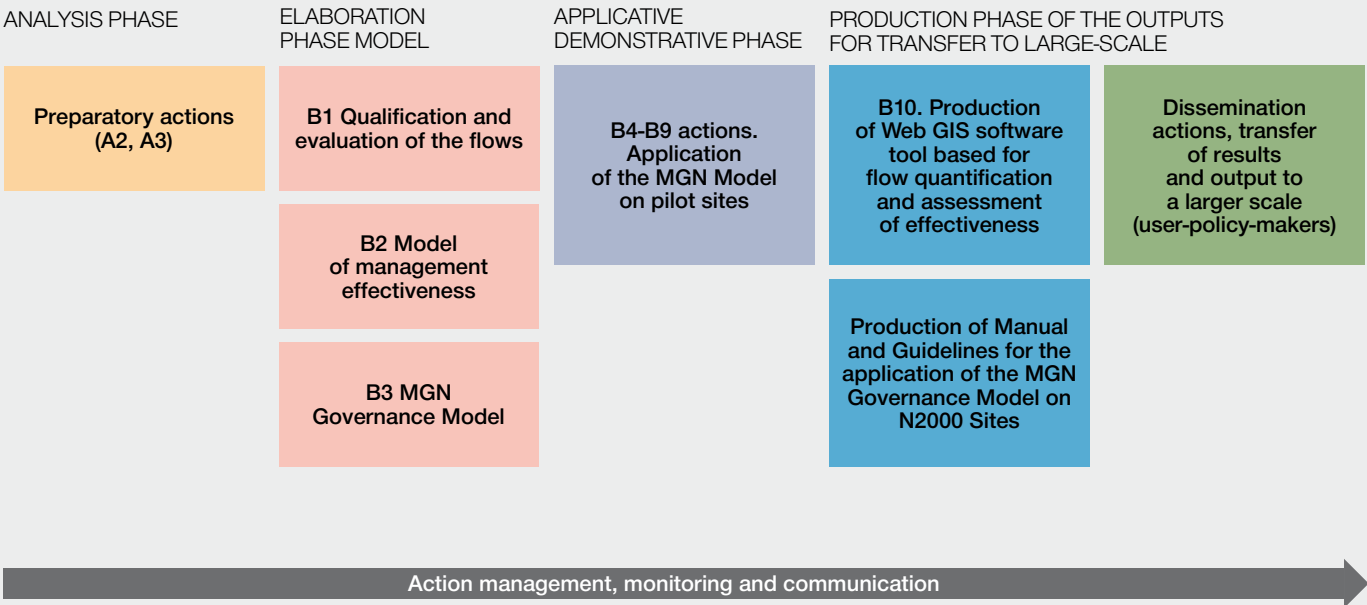
LIFE+ MAKING GOOD NATURA is engaged in the four years of its development (2012-2016) with a complex set of actions marked by a method of demonstration and application. The preparatory A2 and A3 actions establish a cognitive framework of ecosystem services: bibliographic studies, cartographic analysis and of the management tools of the territories, along with the involvement of local stakeholders, form the basis for the identification of ecosystem services in the Pilot Sites. The B1-B3 actions, instead, focus on the definition of a model of qualitative and quantitative evaluation of ecosystem services. In particular, the aim of the B3 action is to develop innovative mechanisms with the objective of ensuring efficient management of the Natura 2000 Sites through PES and other forms of self-financing. The

B4-B9 actions apply this defined format (in the B1-B3 actions) to demonstrate its efficiency. The model is applied in different contexts to measure the value of ecosystem services in a comprehensive framework for governance of the Sites. Within the B10 action, specific IT tool based on web technologies is developed, geared for the authorities responsible of the management of Natura 2000 Sites, while, within the B11 action, the creation of a manual is being planned, with procedures for the application of the project. The manual will be available on the project website, both in Italian and English. The D2 action is to build a virtual platform (helpdesk, FAQs, email) for assistance to people not directly involved in the project, for them to understand and use the results of the B1-B3 actions..



OVERVIEW OF THE Life+ PROJECT

Making public goods provision the core business of the Natura 2000



PILOT SITES

There are 21 Pilot Sites in the Natura 2000 network involved in the project Life+ Making Good Natura, 8 Special Protection Areas (SPAs), 12 Sites of Community Importance (SCIs) and 1 ZPS and SIC Site, for a total area of over 90,000 hectares. The habitats involved of the Natura 2000 network are 50, of which 12 are considered priority.





LOMBARDY REGION

SPA IT2040401
Parco Regionale
Orobie Valtellinesi
SPA IT20A0402
Riserva Regionale
Lanca di Gerole
SPA IT20B0501
Viadana, Portiolo
San Benedetto Po
e Ostiglia

ERSAF
Regional Body for Agriculture
and Forests of Lombardy

SPA IT2020301
Triangolo Lariano
SCI IT2020002
Sasso Malascarpa
SCI IT2070022
Corno della Marogna
SCI IT2070021
Valvestino
SPA IT2070303
ValGrigna

SPA IT2040601
Bagni di Masino
Pizzo Badile
Val di Mello
Val Torrone
Piano di Preda Rossa

SCI IT2040019
Bagni di Masino
e Pizzo Badile
SCI IT2040020
Val di Mello
Piano di Preda Rossa
SPA IT2070402
Alto Garda Bresciano

SICILIAN REGION

Regional Department of
State Forests Bodies

SCI ITA020007
Boschi Ficuzza
Cappelliere
Vallone Cerasa
Castagneti
Mezzojuso
SCI ITA020008
Rocca Busambra
di Rao
SCI ITA060006
Monte Sambughetti
Monte Campanito

PARCO NAZIONALE DEL CILENTO, VALLO DI DIANO E ALBURNI

SCI/SPA IT8050055
Monti Alburni
SCI IT8050025
Monte della Stella
SCI IT8050006
Balze di Teggiano

PARCO NAZIONALE DEL POLLINO

SCI IT9310014
Fagosa
Timpa dell'Orso
SCI IT9310008
La Petrosa

PARCO INTERREGIONALE DEL SASSO SIMONE E SIMONCELLO

SPA IT4090006
Versanti occidentali
del Monte Carpegna
Torrente Messa
Poggio di Miratoio

The differentiation between
Biogeographic Regions,
type of entity management and
socio-economic characteristics
of the sites are an added
value to the project in terms of
ecosystem diversity.

7 Regions

3 Biogeographical Regions

Nature agroforestry sites
are represented in all three
biogeographical regions in Italy
(Mediterranean, Continental and
Alpine). Pilot Sites are in the following
seven regions: Basilicata, Calabria,
Campania, Emilia Romagna,
Lombardy, Marche and Sicily.

Managing Authority

The territorial partners involved are
coordinating bodies or have direct
management of the pilot sites in:
Lombardy Region,
The Parco Nazionale del Cilento
Vallo del Diano e degli Alburni
authority, Sicilian Region,
(Regional Department of the State
Regional Forests Agency),
Parco Nazionale del Pollino authority,
Parco Interregionale del Sasso
Simone and Simoncello authority
and ERSAF Agency for Services
to Agriculture and Forestry of
Lombardy. As ERSAF is responsible
for the management, protection and
development of forests in Lombardy,
it participates in the project
taking into account the management
of the Sites in the whole.

Lombardy has delegated the
management of its sites to the
provincial administration (Cremona
and Mantova for the concerned
Sites) and Protected Areas (Parco
Regionale Orobie Valtellinesi).

The municipalities involved
are 171 for a total population of
63,000 inhabitants.

PARCO REGIONALE DELLE OROBIE VALTELLINESI the great coniferous forests



Full name of the site
Special Protection Area
Parco delle Orobie Valtellinesi
Natura 2000 Code
IT2040401

Managing Authority
Parco delle Orobie Valtellinesi
Authority

Biogeographical Region
Alpine

Admzinistrative Region
Lombardy

Total area 22,831 hectares

Municipalities within the Site 22

Inhabitants 30,454

of Farms 1,004

of Community Habitats 21
(3 Priority Habitats *)

of Community Species 207
(species under the Birds Directive:
black grouse, grouse, partridge,
red-backed shrike, harrier, nightjar,
honey buzzard, golden eagle)

Most representative habitats

*Nardus grasslands, species-rich,
on siliceous substrate in mountain
areas Code 6230,
1,445.6 hectares

*Forests of slopes, screes and
Tilio-Acerion Valleys Code 9180,
140.2 hectares

*Alluvial forests with Alnus
glutinosa and Fraxinus excelsior
(Alno-Padion, Alnion incanae,
Salicion albae) Code 91E0, 15
hectares

Acidophilic mountain's and alpine
forests of Picea (Vaccinio-Piceetea)
Code 9410, 6,232.1 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

The SPA of Parco Regionale delle Orobie Valtellinesi presents classic traits
of the alpine area with forests, mountain meadows and streams. This land-
scape results in three ecosystem services of great interest: water regulation,
wildlife and fishery resources, forage and pastures. The wild and rugged ter-
ritory is maintained by breeders, forest enterprises and farmers, and besides
that provides considerable quantities of water used primarily for hydroelectric
purposes. The large extensions of woodland guarantees food, shelter and
reproduction of a rich animal biodiversity. Lastly, meadows - pastures guar-
antee the quality of Bitto cheese. D.O.P.



1. The conservation of habitats generates benefits
2. Ecosystem services contribute to the wellbeing of the population
3. Potential beneficiaries may be citizens, farmers, and both private and public companies
4. Governance of Ecosystem Services can have a positive impact on the efficiency of the management of the Site

- Sparse vegetation
- Coniferous forests
- Broad-leaved forest
- Mixed Forest
- Annual and permanent crops
- Bodies of water
- Natural grasslands
- Moors and heathland
- Pastures
- Bare rocks

RISERVA REGIONALE
LANCA DI GEROLE
a mosaic of wetlands

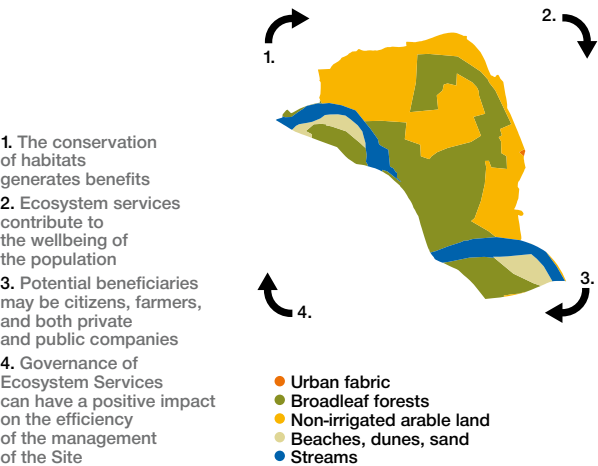


Full name of the site
Special Protection Area
Riserva Regionale Lanca di Gerole
Natura 2000 Code
IT20A0402
Managing Authority
The Province of Cremona
Biogeographical Region
Continental
Administrative Region
Lombardy
Total area 1,180 hectares
Municipalities within the Site 2
Population 1,658
of Farms 90
of Community Habitats 4
(1 Priority Habitat *)
of Community Species 254
(species under the Birds Directive:
harrier, stone curlew, owl, pintail,
marsh harrier, moorhen, crane,
lark, common sandpiper)

Most representative habitats
*Alluvial forests of *Alnus glutinosa*
and *Fraxinus excelsior*
(Alno-Padion, Alnion incanae,
Salicion albae).
Code 91E0, 18.1 hectares
Rivers with muddy banks with
Chenopodium rubri p.p and
Bidenton vegetation p.p. Code
3270, 8.8 hectares
Natural eutrophic lakes,
with type Magnopotamion
or Hydrocharition vegetation.
Code 3150, 1.6 hectares
Riparian mixed forests of large
rivers with *Quercus robur*,
Ulmus laevis and *Ulmus minor*,
Fraxinus excelsior or *Fraxinus*
angustifolia (*Ulmion minoris*)
Code 91F0, 1.9 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

The SPA Riserva Regionale Lanca di Gerole is located in the River Po flood plain and is one of the best examples of this type of geographical area, characterized by the presence of diversified wetlands. The ecosystem services of interest are flood control and containment of hydrological instability, wildlife and fishery resources. Likewise, the current habitats (forests, windbreaks, poplar groves, agricultural crops) and the different vegetation formations against the background of the river provide the landscape with a high aesthetic value.



VIADANA PORTIOLO
SAN BENEDETTO PO E OSTIGLIA
a site with high wildlife value

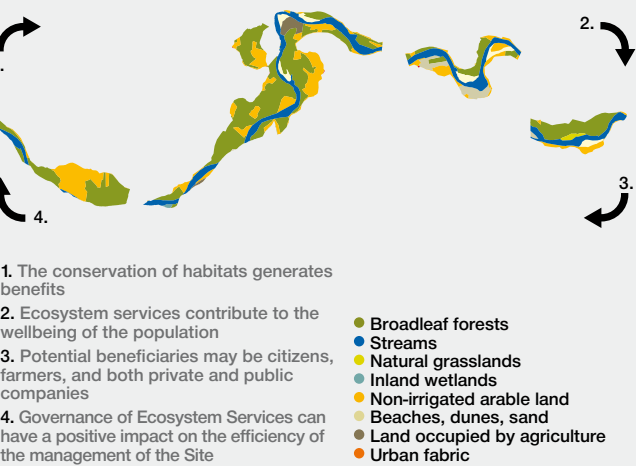


Full name of the site
Special Protection Area
Viadana, Portiolo, San Benedetto
Po and Ostiglia
Natura 2000 Code
IT20B0501
Managing Authority
Province of Mantua
Biogeographical Region
Continental
Administrative Region
Lombardy
Total area 7,225 hectares
Municipalities within the Site 13
Population 77,764
of Farms 1,687
of Community Habitats
3 (1 Priority Habitats*)
of Community Species 405
(species under the Birds Directive:
black kite, osprey, minor harrier,
bee-eater, cormorant, little ringed
plover, common tern, little tern,
oystercatcher, golden oriole)

Most representative habitat
*Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*
(Alno-Padion, Alnion incanae,
Salicion albae).
Code 91E0, 259. 7 hectares
Rivers with muddy banks with
Chenopodium rubri p.p and
Bidenton vegetation p.p.
Code 3270, 332.2 hectares
Natural eutrophic lake with
vegetation type Magnopotamion
or Hydrocharition vegetation.
Code 3150, 3.8 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

The SPA Viadana, Portiolo, San Benedetto Po e Ostiglia contains all the natural (running water, sandy land, oxbow lakes, riparian forests) and anthropic (poplar groves, arable land) expressions typical of the middle course of the Po River. It presents, as a major ecosystem service, flood regulation and containment of hydrological instability due to extensive areas responsible for containing river lamination. The service of timber production, represented by poplar cultivation, could be a source of income devoted to nature conservation. The recreational value of the site resides rather in the activities of fishing, hunting and bicycle tourism, and could generate forms of economy compatible with the protection of the environment.



SASSO MALASCARPA
Triassic geological site

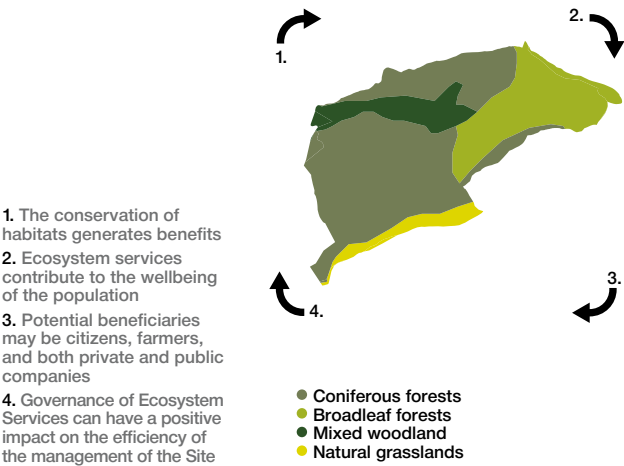


Full name of the site
Site of Community Importance
Sasso Malascarpa
Natura 2000 Code
IT2020002
Managing Authority
ERSAF (Regional Body for Agriculture and Forests of Lombardy)
Bio geographical Region
Continental
Administrative Region
Lombardy
Total area 328 hectares
Municipalities within the Site 2
Population 16,721
of Farms 42
of Community Habitats 6 (3 Habitat Priority)
of Community Species 52
greater horseshoe bat, backed shrike, nightjar, eagle owl white-clawed crayfish

Most representative habitat
*Natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (remarkable blossoming of orchid).
Code 6210, 12.4 hectares
*Limestone pavements.
Code 8240, 0.3 hectares
*Stone springs with travertine formation. (Cratoneurion).
Code 7220, 0.2 hectares
Calcareous beech forests of Central Europe of the *Cephalanthero-Fagion*.
Code 91K0, 18.4 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

The SIC Sasso Malascarpa Natural Reserve is part of the Regional Forest Corni di Canzo. Primary ecosystem services are hydrological protection from landslides, water regulation and groundwater recharge, and the aesthetic value. The first two services are related to the geology and topography of the valleys and the presence of the farmers leading cows in mountain pastures ensures the pressure maintenance of the area (hydrological instability, forest expansion, etc.). The aesthetic is guaranteed by the alternation of woods, meadows - pastures and rock formations such as Sasso Malascarpa marking the landscape, making it particularly popular for tourism.



VALVESTINO
ancient history and nature

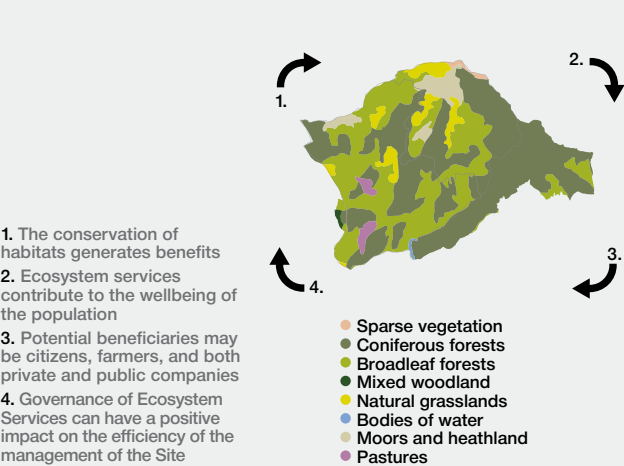


Full name of the site
Site of Community Importance
Valvestino
Natura 2000 Code
IT2070021
Managing Authority
Mountain Community of Alto Garda Bresciano Park
Biogeographical Region
Alpine
Administrative Region
Lombardy
Total area 6,476 hectares
Municipalities within the Site 5
Population 5,076
of Farms 159
of Community Habitats 10 (3 Priority Habitat*)
of Community Species 141
eagle owl, lynx, goshawk, harrier, false ringlet, oak longhorn beetle, stag beetle, woodpeckers, freshwater crayfish

Most representative habitat
*Woods with *Pinus mugo* and *Rhododendron hirsutum* (*Mugo-Rhododendretum hirsuti*).
Code 4070, 54 acres
*Natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (remarkable blossoming orchid).
Code 6210, 174.8 hectares
Forests Illyrian *Fagus sylvatica* (*Aremonio-Fagion*).
Code 91K0, 654.2 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

The SIC Valvestino, located in the Occidental Gardesana Forest, is characterized by three ecosystem services: entertainment, water regulation and carbon sequestration services. Besides its natural beauty, the SIC offers many historical and cultural evidence of ancient mountain activities (the Sawmill, the barns at Cima Rest). In addition, due to its proximity to Lake Garda, Valvestino benefits from an influx of tourists for several months a year. Within the site, large quantities of water recharge the groundwater and guarantee the water supply to the area. The significant forest coverage results in large carbon accumulation and sequestration that could be enhanced with the involvement of local companies wishing to communicate "sustainability."



ALTO GARDA BRESCIANO
important migration route for birds



Full name of the site
Special Protection Area
Alto Garda Bresciano

Natura 2000 Code
IT2070402

Managing Authority
Mountain Community
Parco Alto Garda Bresciano

Biogeographical Region
Alpine

Administrative Region
Lombardy

Total area 21,535 hectares

Municipalities within the Site 6

Population 14,807

of Farms 289

of Community Habitats 17 (5
Priority Habitats)

of Community Species 266
(species under the Birds Directive:
wood grouse, rock partridge, black
grouse, hazel grouse, grey-headed
woodpecker, golden eagle, harrier,
pygmy owl, eagle owl)

Most representative habitats

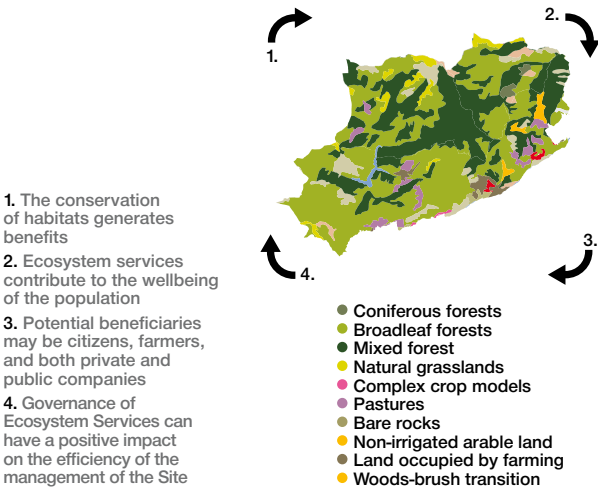
* Forests of slopes, screes
and Tilio-Acerion valleys.
Code 9180, 361.7 hectares

* Bushes with Pinus mugo and
Rhododendron hirsutum
(Mugo-Rhododendretum hirsuti).
Code 4070, 141.5 hectares

* Eastern white oak forests.
Code 91AA, 51.5 hectares

* Stone springs with Tufa formation
(Cratoneurion).
Code 7220, 0.7 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SPA Alto Garda Bresciano, part of the Foresta Gardesana Occidentale, is a site with high aesthetic value. The landscape is unique, with stunning views of the lake on one side, and on the other, the view of either wooded and rocky slopes and the inland's valleys. Another ecosystem service of primary importance for the site, guaranteed by agricultural and forest area, is the one of timber production. Lastly, through the conscious management of river basins and careful use of forests and pastures, there is the service for the supply of drinking water, which is vital to the Lake Garda basin.



CORNO DELLA MAROGNA
a laboratory for
environmental education



Full name of the site
Site of Community Importance
Corno della Marogna

Natura 2000 Code
IT2070022

Managing Authority
Mountain Community
Parco Alto Garda Bresciano

Biogeographical Region
Alpine

Administrative Region
Lombardy

Total area 3,572 hectares

Municipalities within the Site 2

Population 3,423

of Farms 103

of Community Habitats 9 (2
Priority Habitats*)

of Community Species 133
bear, golden eagle, peregrine
falcon, yellow-bellied toad,
bullhead, rock partridge, grouse,
Italian crested newt

Most representative habitat

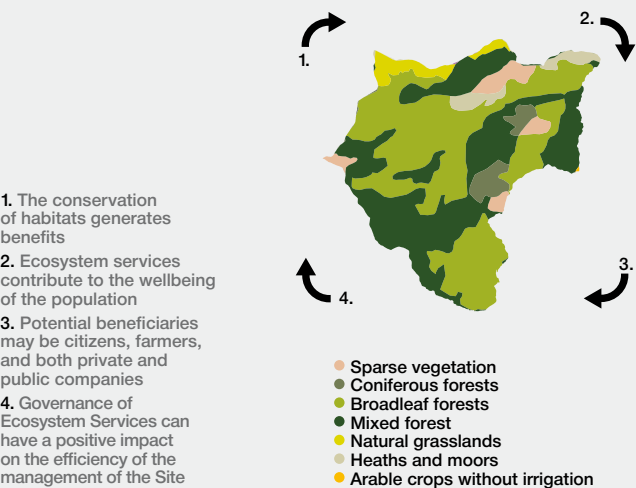
* Bushes with Pinus mugo and
Rhododendron hirsutum
(Mugo-Rhododendretum hirsuti).
Code 4070, 91.9 hectares

* Stoned springs with tufa formation
(Cratoneurion).
Code 7220, 0.2 hectares

Alpine and subalpine calcareous
grasslands.
Code 6170, 551.7 hectares

Fagus sylvatica Forests Illyrian
(Aremonio-Fagion).
Code 91K0, 252.9 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
For the SIC Corno della Morgana, in the Foresta Gardesana Occidentale, the main ecosystem services are the recreational value, carbon sequestration and genetic resources. The site, in fact, is primarily made up of forests and it is characterized by its "regulated" wood, both for use and for production; the naturalistic value of the woodland is mainly reflected in the recreational value besides being in an enormous reservoir of carbon accumulation. Service for the preservation of genetic resources, mainly forests, due to the presence of several woods from certified seed is also important.



TRIANGOLO LARIANO
birdlife and rock vegetation



Full name of the site
Special Protection Area
Triangolo Lariano

Natura 2000 Code
IT2020301

Managing Authority
ERSAF (National Body for Services
to Agriculture and Forestry of
Lombardy)

Biogeographical Region
Alpine

Administrative Region
Lombardy

Total area 593 hectares

Municipalities within the Site 3

Population 19,377

of Farms 60

of Community Habitats 6 (3
Priority Habitats*)

of Community Species 84
(species under the Birds Directive:
honey buzzard, peregrine falcon,
rock partridge, eagle owl, nightjar,
tawny pipit, red-backed shrike,
ortolan bunting)

Most representative habitat

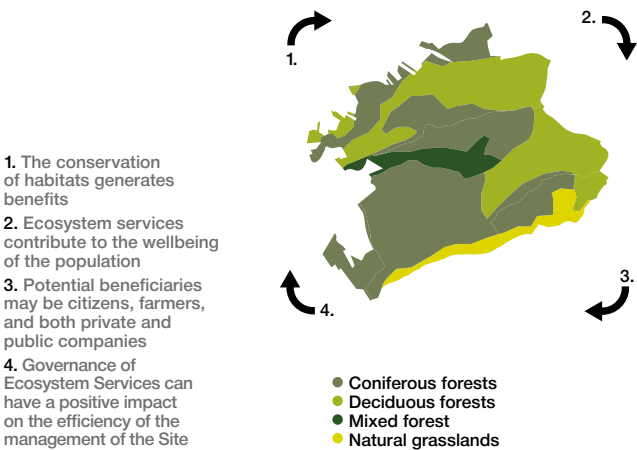
* Natural dry grasslands and
scrubland facies on calcareous
substrates (Festuco-Brometalia)
(significant blossoming of orchids).
Code 6210, 12.4 hectares

* Limestone pavements.
Code 8240, 0.3 hectares

Petrifying springs with tufa
formation (Cratoneurion).
Code 7220, 0.2 hectares

* Calcareous beech forests
of Central Europe Cephalanthero
- Fagion.
Code 9150, 18.4 hectares s

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SPA Larian Triangle, located in the Horns of Canzo (Corni di Canzo) Regional Forest, is the typical environment of the Pre-Alps foothills characterized by the alternation of natural deciduous forests with artificial reforestation of conifers, which are evidence of agriculture activities made by the State Forestry Department in the 1950s from this environment, tourism has becoming as the most interesting ecosystem service - recreational, enjoyed by thousands of visitors every year and the cultural and inspirational service due to the presence of several religious, archaeological and scenic Sites. The large expanse of forests and their management by ERSAF, as well as farmers and breeders, render the service of carbon sequestration particularly important.



VAL GRIGNA
Forests, pastures,
shrub lands, peat lands



Full name of the site
Special Protection Area
Val Grigna

Natura 2000 Code
IT2070303

Managing Authority
ERSAF (Regional Agency for
Agriculture and Forests of
Lombardy)

Biogeographical Region
Alpine

Administrative Region
Lombardy

Total surface 2,874 hectares

Municipalities within the Site 5

Population 15,846

of Farms 287

of Community Habitats 11 (2
Priority Habitats*)

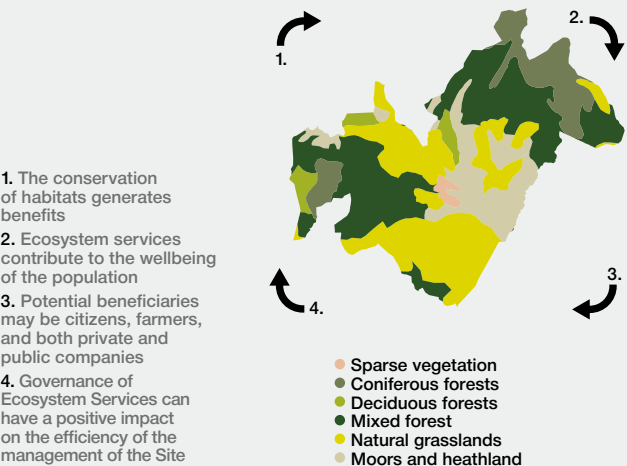
of Community Species 102
(species under the Birds Directive:
golden eagle, peregrine falcon,
black grouse, wood grouse, rock
partridge, pygmy owl, boreal owl,
eagle owl, hazel grouse, black
woodpecker, red-backed shrike)

Most representative habitat

* Nardus grasslands, species-rich,
on siliceous substrates
in mountain areas.
Code 6230, 275.9 hectares

Alpine Larix decidua and/or
Pinus Cembra forests.
Code 9420, 847.8 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SPA Val Grigna, located in the Regional Forest of the same name, is made of medium and high mountains and wooded slopes alternating with open meadows and grazing pastures. Pasture/Forage is the typical ecosystem service of this landscape since there are several huts and farmers who act as guardians of the territory. The soil and climatic conditions make the ecosystem service of supply of mushrooms and berries very interesting, as shown by the many pickers of the area. The cultural and inspirational ecosystem services are guaranteed by the presence of many religious, archaeological, scenic and cultural Sites.



BAGNI DI MASINO, PIZZO BADILE
PIZZO DEL FERRO
seventeen community habitats



Full name of the site
Site of Community Importance
Bagni di Masino – Pizzo Badile
Pizzo del Ferro

Natura 2000 Code
IT2040019

Managing Authority
ERSAF (Regional Body for
Agriculture and Forests of
Lombardy)

Biogeographical Region
Alpine

Administrative Region
Lombardy

Total area 2,757 hectares

Municipalities within the Site 1

Population 939

of Farms 13

of Community Habitats 17 (3
Priority Habitats*)

of Community Species 53
owl, boreal, eagle owl, golden eagle
black grouse, rock partridge,
rock ptarmigan, hazel grouse,
wood grouse, coronella austriaca,
viper berus

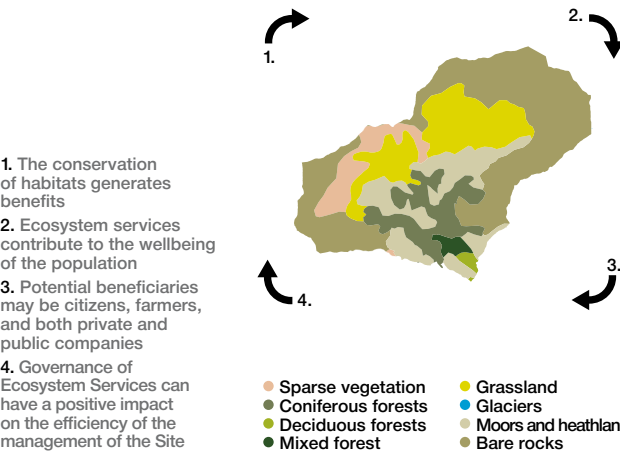
Most representative habitats
*Nardus grasslands, species-rich,
on siliceous substrates in mountain
areas (and sub-mountain areas i
n Continental Europe).
Code 6230, 117.4 hectares

*Alluvial forests with Alnus
glutinosa and Fraxinus excelsior
(Alno-Padion, Alnion incanae,
Salicion albae).
Code 91E0, 32.5 hectares

*Forests of slopes, screes and
Tilio-Acerion.
Code 9180, 15.3 hectares

Siliceous alpine and boreal
grasslands.
Code 6150, 676.6 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
he SIC Bagni di Masino – Pizzo Badile – Pizzo del Ferro partially overlaps
with the Foresta della Lombardia Val Masino in the western branch of the
valley. The primary ecosystem services are water regulation (groundwater
recharge), tourism and recreation, protection from erosion and geological
instability. This is also a thermal bath in the area, which makes use of the pure
water from the streams. At a later stage the water return back to the down-
stream to be used by large hydroelectric installations located in the lower val-
ley. The services provided by breeders, farmers and those who “load” cattle
in mountain pastures may be partially compensated by the valley operators
of the plants that use large amounts of water.



BAGNI DI MASINO, PIZZO BADILE
VAL DI MELLO, VAL TORRONE
PIANO DI PREDA ROSSA



Full name of the site
Special Protection Area
Bagni Di Masino, Pizzo Badile,
Val Di Mello, Val Torrone,
Piano Di Preda Rossa

Natura 2000 Code
IT2040601

Managing Authority
ERSAF (National Agency for
Agricultural and Forestry Services
of Lombardy)

Biogeographical Region
Alpine

Administrative Region
Lombardy

Total area 9,650 hectares

Municipalities within the Site 3

Population 6,300

of Farms 190

of Community Habitats 17 (3
Priority Habitats*)

of Community Species 79
golden eagle, hazel grouse,
common pipistrelle, firecrest, beech
longhorn beetle, apollo butterfly

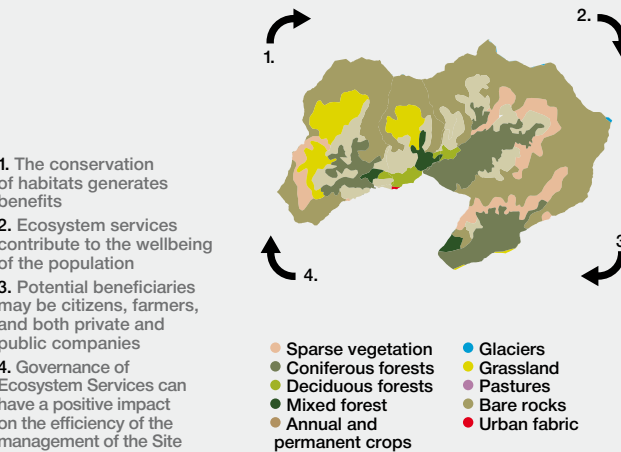
Most representative habitats
*Nardus grasslands, species-rich,
on siliceous substrates in mountain
areas. Code 6230, 287.2 hectares

*Forests of slopes, scree and Tilio-
Acerion. Code 9180, 62.6 hectares

*Alluvial forests with Alnus glutinosa
and Fraxinus excelsior
(Alno-Padion, Alnion incanae,
Salicion albae).
Code 91E0, 42.5 hectares

Siliceous scree of the mountain
plain to snow levels (Androsacetalia
alpinae and Galeopsietalia ladani).
Code 1763.5, 8110 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SPA Bagni di Masino, Pizzo Badile, Val di Mello, Val Torrone, Piano di
preda Rossa coincides with the Foresta di Lombardia Val Masino. The great
altitude range allows the presence of a heterogeneous environment of great
landscape and naturalistic value that offers a diversified tourism (geo-tourism,
thermal bath, and sports tourism), which provides an important resource for
the local community from a financial point of view. In addition to the touristic,
recreational and aesthetic ecosystem service, the potentiality of the area can
be seen in the presence of many springs that ensure the availability of water,
either for drinking purposes or irrigation and hydroelectric use.



VAL DI MELLO
PIANO DI PREDA ROSSA
boulders and monumental trees



Full name of the site
Site of Community Importance
Val Di Mello
Piano Di Preda Rossa

Natura 2000 Code
IT2040020

Managing Authority
ERSAF (National Agency for
Agricultural and Forestry Services
of Lombardy)

Biogeographical Region
Alpine

Administrative Region
Lombardy

Total area 5,793 hectares

Municipalities within the Site 3

Population 6,300

of Farms 190

of Community Habitats 14 (2
Priority Habitats*)

of Community Species 77
red deer, alpine chamois, alpine
ibex, greater horseshoe bat,
common frog

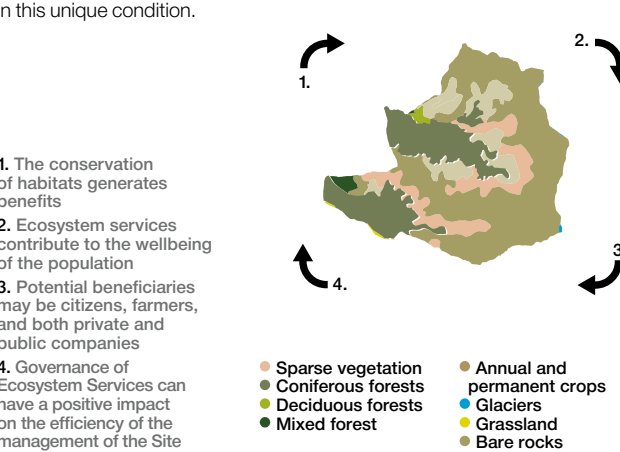
Most representative habitats
*Nardus grasslands, species-rich,
on siliceous substrates in mountain
areas (and sub-mountain areas in
Continental Europe).
Code 6230, 168.8 hectares

*Alluvial forests with Alnus
glutinosa and Fraxinus excelsior
(Alno-Padion, Alnion incanae,
Salicion albae).
Code 91E0, 5.1 hectares

Siliceous rocky vegetation
chasmophytic.
Code 1315.8, 8220 hectares

Siliceous scree of the
mountain plain to snow levels
(Androsacetalia alpinae and
Galeopsietalia ladani).
Code 8110 1133.3 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SCI Val di Mello – Piano di Preda Rossa coincides with the area of Val di
Mello, Val Masino and the Foresta di Lombardia Val Masino in the western
branch of the valley. The abundance of water resources makes the eco-
system service of water regulation (groundwater recharge) a priority over
the recreational value, and protection from erosion and geological instabil-
ity – due to the numerable applications, ranging from drinking water (for
example: bottling) to hydropower. The ecosystem service of recreational
value guarantees the local community and tourism operators with the op-
portunity to develop an economy compatible with the principles of conser-
vation. The ecosystem service of erosion protection is a very important
service that is characterized by large presence of waterways and forests
in this unique condition.



MONTE DELLA STELLA
chestnut groves
overlooking the sea



Full name of the site
Site of Community Importance
Monte della Stella

Natura 2000 Code
IT8050025

Managing Authority
Cilento National Park
(Parco Nazionale del Cilento),
Diano and Alburni Valley
(Vallo di Diano e Alburni)

Biogeographical Region
Mediterranean

Administrative Region
Campania

Total area 1,180

Municipalities within the Site 7

Population 9,212

of Farms 1,625

of Community Habitats 4 (1
Priority Habitat*)

of Community Species 14
red-backed shrike, quail, song
thrush, greater horseshoe bat,
greater mouse-eared bat, lesser
horseshoe bat, Apennine yellow-
bellied toad, Italian marbled white,
aesculapian snake, agile frog

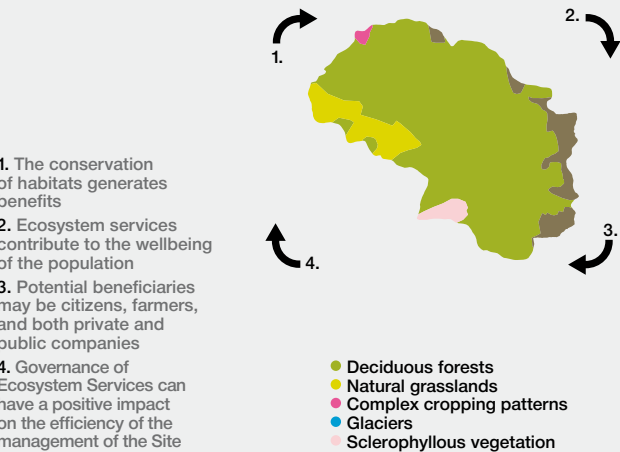
Most represented habitats
*Natural dry grasslands and
scrubland facies on calcareous
substrates (Festuco-Brometalia)
(important orchid sites).
Code 6210, 14.5 hectares

Woods of Castanea sativa.
Code 9260, 625 hectares

Forests of Quercus ilex and
Quercus rotundifolia.
Code 9340, 38 hectares

Thermo-Mediterranean and
pre-desert scrub.
Code 5330, 6.1 hectare

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
For the SIC Monte della Stella, the prior ecosystem services are the collec-
tion of drinking water of berries as well as recreational tourism. At the site,
water is collected for drinking purposes for the coastal area towns without
any form of financial “recognition”. The same applies to the collection of ber-
ries: chestnut cultivation is particular and a resource that is provided by the
forests in the territory. In addition, the site could become a tourist attraction
for nearby coastal areas. The organization of this niche tourism could bring
economic benefits to the local populations with a positive impact on the
management of the site itself.



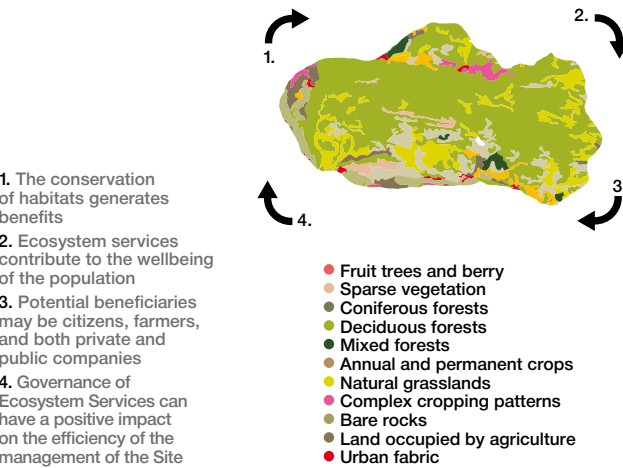
MONTI ALBURNI
the largest pilot site of the Project
Life+ Making Good Natura



Full name of the site
Site of Community Importance
e Special Protection Area
Monti Alburni
Natura 2000 Code
IT8050055
Managing Authority
Parco Nazionale del Cilento
Vallo di Diano e Alburni
Biogeographical Region
Mediterranean
Administrative Region
Campania
Total area 25,387 hectares
Municipalities within the Site 14
Population 27,074
of Farms 4,983
of Community Habitats 8 (4
Priority Habitats*)
of Community Species 52
(species under the Birds Directive:
little egret, stork, peregrine falcon,
lanner falcon, golden eagle,
black kite, red kite, marsh harrier,
woodlark, billed chough)

Most representative habitats
*Apennine beech forests with
Taxus and Ilex.
Code 9210, 5973.9 hectares
*Rupicolous calcareous or
basophilic of Alysso Alysso-Sedion
albi. Code 6110, 198.2 hectares
*Apennine beech forests with
Abies alba and beech forests with
Abies nebrodensis.
Code 9220, 24.7 hectares
*Pseudo-steppe trails with
Thero-Brachypodietea
grasses and annuals.
Code 6220, 4.4 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SCI and SPA Parco Nazionale del Cilento Vallo di Diano e Alburni is the largest pilot site of the project and falls under the mountain-hilly environmen- tal typology, with typical formations of the Apennines oak and beech groves. Ecosystem services identified as priorities are: protection from erosion and geological instability, tourist and recreational value and water regulation. The multifunctional role of forests is crucial for water regulation with benefits both for the operators of hydroelectric plants - indirectly on the local communities and the municipalities involved – and as determining factor the prevention of landslides and erosion.



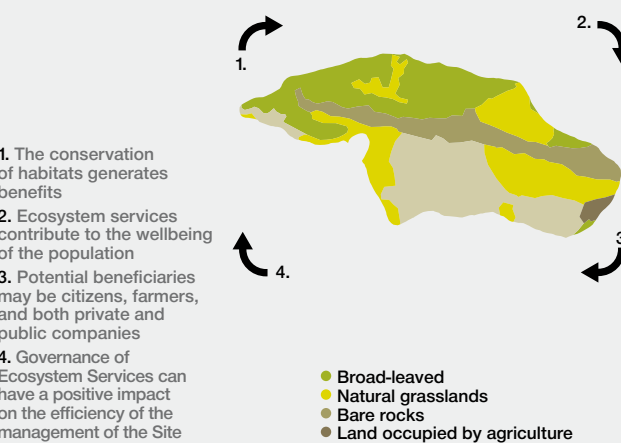
BALZE DI TEGGIANO
orchids and rocky habitats



Full name of the site
Site of Community Importance
Balze di Teggiano
Natura 2000 Code
IT8050006
Managing Authority
Parco Nazionale del Cilento,
Vallo di Diano e Alburni
Biogeographical Region
Mediterranean
Administrative Region
Campania
Total area 1,202 hectares
Municipalities within the Site 3
Population 10,554
of Farms 1,077
of Community Habitats 3 (2
Priority Habitats*)
of Community Species 12
harrier, lesser spotted woodpecker,
skylark, quail, red-backed shrike,
oak longhorn beetle, lesser
horseshoe, Bechstein's bats, Italian
marbled white, four-lined snake

Most representative habitats
*Apennine beech forests
with Taxus and Ilex.
Code 9210, 279.1 hectares
*Natural dry grasslands and
scrubland facies on calcareous
substrates (Festuco-Brometalia)
(remarkable blossoming orchid).
Code 6210, 627.9 hectares
Woods of Castanea sativa.
Code 9260, 1.1 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The Balze di Teggiano in the Parco Nazionale del Cilento, Vallo di Diano e Alburni is mainly characterized by rocky areas and prairie habitats. There are essentially two Ecosystem services identified : genetic resources and pro- duction of game (fishery resources). By reactivating the agricultural traditions that characterized the site in the past, the genetic varieties and medicinal plants could be used in agriculture. The ecosystem service that provide the game has been taken into account because there is a large number of wild boars in the territory, which are problematic for agriculture but may become a resource with economic and social benefits, involving various categories of stakeholders and have a positive impact on the management of the site.



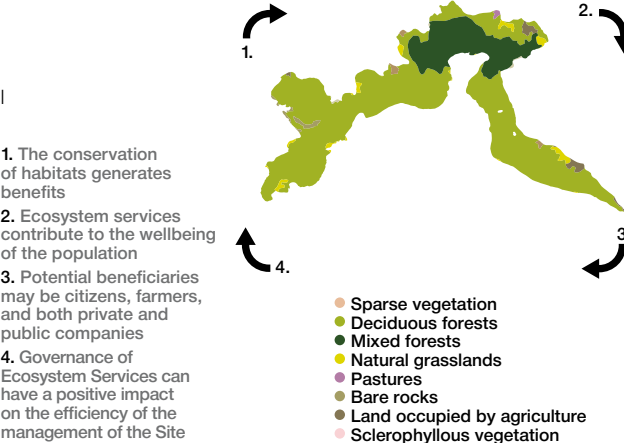
FAGOSA -TIMPA DELL' ORSO
in the heart of
Pollino National Park



Full name of the site
Site of Community Importance
Fagosa - Timpa dell'Orso
Natura 2000 Code
IT9310014
Managing Authority
Pollino National Park
Biogeographical Region
Mediterranean
Administrative Regions
Basilicata, Calabria
Total area 6,173 hectares
Municipalities within the Site 11
Population 44,795
of Farms 4,428
of Community Habitats (2
Priority Habitats*)
of Community Species 10
wolf, lesser spotted woodpecker,
black woodpecker, collared
flycatcher, marsh turtle, spectacled
salamander, crested newt, rosalia
longicorn

Most representative habitats
*Beech forests of the Apennines
with Abies alba and beech forests
with Abies Nebrodensis.
Code 9220, 6101.2 hectares
*Natural dry grasslands and
scrubland facies on calcareous
substrates (Festuco-Brometalia).
Code 6210 124.1 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SIC Fagosa - Timpa dell'Orso in the Parco Nazionale del Pollino is a site covered almost entirely by beech forests. The key ecosystem services iden- tified are: drinking water, genetic resources and tourist-recreation value. In particular, the site is located on one of the most important aquifers of the southern Apennines that has a fundamental reserve of water resources at both regional and interregional level and is used almost exclusively as drink- ing water. The availability of water, the microclimate and high biodiversity enable the provision of genetic resources indispensable for the production of typical crop varieties. The value of recreation of the ecosystem service is evidenced by the large number of tourists that visit the site annually.



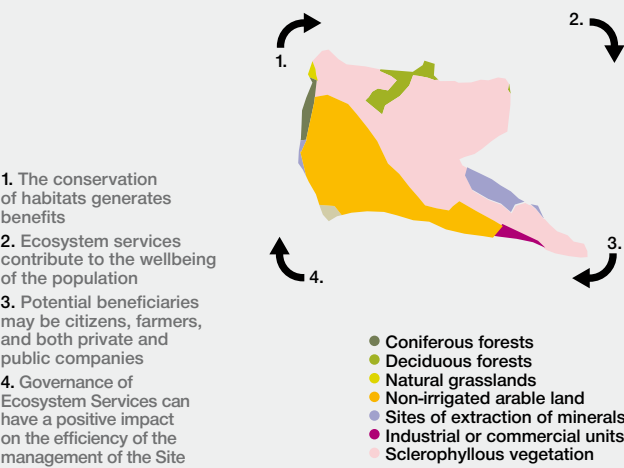
LA PETROSA
habitat for five species
of Italian lark



Full name of the site
Site of Community Importance
La Petrosa
Natura 2000 Code
IT9310008
Managing Authority
Pollino National Park
Biogeographical Region
Mediterranean
Administrative Regions
Calabria
Total area 350 hectares
Municipalities within the Site 1
Population 22,515
of Farms 1,764
of Community Habitats 2 (1
Priority Habitat)
of Community Species 11
wolf, skylark, tawny pipit, toed lark,
nightjar, crested lark, woodlark,
grille, black kite

Most representative habitats
*Pseudo-steppe trails with
grasses and annuals
of the Thero-Brachypodietea.
Code 6220, 176.9 hectares
Thermo-Mediterranean and pre-
desert scrub.
Code 5330, 15.9 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES
The SIC La Petrosa in the Parco Nazionale del Pollino is characterized mainly by grasslands, erosional sediment and shrub vegetation. A high identity val- ue is assigned to it by the local community for the presence of a historically important landscape and significant species from a cultural point of view. In addition to its inspiration for culture, arts, education, and spiritual values, the other ecosystem service identified is pasture-feed, as the characteristics of its habitats of the site are connected, albeit less so over time, with grazing due to the presence of agricultural and livestock activities.



MONTE SAMBUGHETTI
MONTE CAMPANITO the most
southern beech forests in Europe



Full name of the site
Site of Community Importance
Monte Sambughetti,
Monte Campanito

Natura 2000 Code
ITA060006

Managing Authority
Sicilian Region

Biogeographical Region
Mediterranean

Administrative Region
Sicily

Total area 3,195 hectares
Municipalities within the Site 3

Population 21,436

of Farms 2,089

of Community Habitats 8 (3
Priority Habitat2*)

of Community Species 22
tawny pipit, meadow pipit, toed
lark, nightjar, eurasian hobby,
red-footed falcon, backed shrike,
woodchat shrike, woodlark, black
kite

Most representative habitats

*Beech forests of the Apennines
with Taxus and Ilex.
Code 9210, 63.8 hectares

*Eastern white oak forests.
Code 91AA, 18.5 hectares

*Pseudo-steppe trails of grass
and annual plants Thero-
Brachypodietea.
Code 6220, 12.6 hectares

Forests of Quercus suber.
Code 9330, 134.6 hectares

BOSCHI DI FICUZZA
the best preserved oak forests
of Western Sicily



Full name of the site

Site of Community Importance
Boschi di Ficuzza e Cappelliere,
Vallone Cerasa,
Castagneti Mezzojuso

Natura 2000 Code
ITA020007

Managing Authority
Sicily Region

Biogeographical Region
Mediterranean

Administrative Region
Sicily

Total Area 4,629 hectares

Municipalities within the Site 4

Population 48,970

of Farms 4,260

of Community Habitats 7 (2
Priority Habitats*)

of Community Species 25
skylark, tawny pipit, toed lark,
nightjar, roller, collared flycatcher,
swallow, eurasian wryneck, quail,
red-backed shrike

Most representative habitats

*Pseudo-steppe trails of grasses
and annuals of the Thero-
Brachypodietea.
Code 6220, 15.7 hectares

*Eastern white oak forests.
Code 91AA, 2159.9 hectares

Forests of Quercus ilex and
Quercus rotundifolia.
Code 9340, 287.2 hectares

Forests of Quercus suber.
Code 9330, 110.1 hectares

ROCCA BUSAMBRA
ROCCE DI RAO mediterranean
grasslands and shrublands



Full name of the site

Site of Community Importance
Rocca Basumbra e Rocche di Rao

Natura 2000 Code
ITA020008

Managing Authority
Sicily Region

Biogeographical Region
Mediterranean

Administrative Region
Sicily

Total Area 6,245 hectares

Municipalities within the Site 4

Population 55,512

of Farms 5,350

of Community Habitats 8 (2
Priority Habitats*)

of Community Species 31
golden eagle, wild cat,
rock partridge of Sicily,
lanner falcon, red kite,

Most representative habitats

*Pseudo-steppe trails of
grasses and annuals of the
Thero-Brachypodietea.
Code 6220, 140.7 hectares

*Eastern white oak forests. Code
91AA, 64.03 hectares
Forests of Quercus ilex and
Quercus rotundifolia.
Code 9340, 298.6 hectares

Thermo-Mediterranean scrub
and pre-desertic.
Code 5330, 378 hectares

MONTE CARPEGNA
a Special Protection Area among
three regions



Full name of the site

Special Protection Area Versanti
occidentali del Monte Carpegna,
Torrente Messa, Poggio di Miratoio

Natura 2000 code
IT4090006

Managing Authority

Special Protection Area Versanti
occidentali del Monte Carpegna,
Torrente Messa, Poggio di Miratoio

Biogeographic Region
Continental

Administrative Regions

Marche, Emilia Romagna, Tuscany
Total area 2,137 hectares

Municipalities involved 1

**Population of the municipalities
involved**
3,017

of Farms 160

of Community Habitats 10 (4
Priority Habitats*)

of Community Species 77
(Species in the Birds Directive:
minor harrier, nightjar, tawny pipit,
gardener, honey buzzard, harrier,
red-billed chough, golden eagle)

Most representative habitats

*Apennine beech forests
with Taxus and Ilex.
Code 9210, 325 hectares

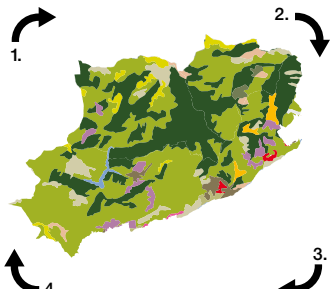
*Eastern white oak forests.
Code 91AA, 3 hectares

*Natural dry grasslands and
scrubland facies on calcareous
substrates (Festuco-Brometalia)
(important orchid sites).
Code 6210, 384 hectares

*Forests of slopes, screes
and Tilio-Acerion.
Code 9180 1.4 hectares

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

The SIC and Riserva Naturale Orientata Monte Sambughetti, Monte Campanito is a site for the most southern beech forests in Europe. The site is characterized by a great quantity of biomass relative to woods with allochthonous species. In addition to wood production, one of the ecosystem services identified is the collection of mushrooms and berries. In addition, there are tourist-recreational services as the area is particularly wooded and a popular place for excursions for all Palermo citizen.

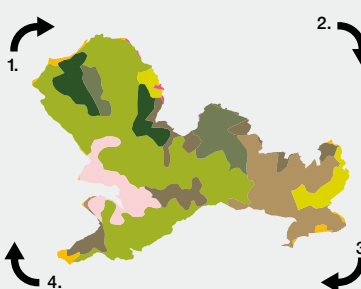


1. The conservation of habitats generates benefits
2. Ecosystem services contribute to the wellbeing of the population
3. Potential beneficiaries may be citizens, farmers, and both private and public companies
4. Governance of Ecosystem Services can have a positive impact on the efficiency of the management of the Site

- Coniferous forests
- Broadleaf forests
- Mixed forest
- Natural grasslands
- Non-irrigated arable land
- Land occupied by farming
- Sclerophyllous vegetation

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

For the SIC Boschi di Ficuzza as well as the neighbouring SIC Rocca Busambra, the ecosystem service of the supply of drinking water related to both sites located in the Bacino Scanzano, has been identified as particularly important because it supplies the city of Palermo. At the same level is to be added the service tourist-recreation ecosystem; in fact, there are at least 25,000 visitors a year guaranteed by the rich, architectural and naturalistic heritage of the Real Casina di Caccia del Borbone supported by the Centro di Recupero della Fauna Selvatica di Ficuzza.

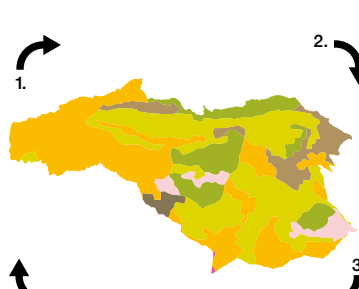


1. The conservation of habitats generates benefits
2. Ecosystem services contribute to the wellbeing of the population
3. Potential beneficiaries may be citizens, farmers, and both private and public companies
4. Governance of Ecosystem Services can have a positive impact on the efficiency of the management of the Site

- Coniferous forests
- Broadleaf forests
- Mixed forest
- Annual crops and permanent
- Grassland
- Complex crop models
- Land occupied by farming
- Non-irrigated arable land
- Sclerophyllous vegetation

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

For the SIC Rocca Busambra, which neighbours the SIC Boschi di Ficuzza, two priority ecosystem services were identified. The forage-pasture service is closely related to the local socio-economic system (cheese production such as Caciocavallo and meat), and plays an important role in the conservation of habitats and species of community interest, depending on the level of intensity of grazing activity. The other ecosystem service of particular interest is the supply of drinking water linked to the influence of the site in the Scanzano basin.

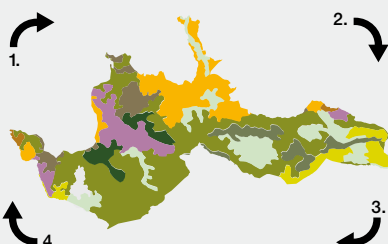


1. The conservation of habitats generates benefits
2. Ecosystem services contribute to the wellbeing of the population
3. Potential beneficiaries may be citizens, farmers, and both private and public companies
4. Governance of Ecosystem Services can have a positive impact on the efficiency of the management of the Site

- Broadleaf forests
- Natural grasslands
- Complex crop models
- Land occupied by farming
- Non-irrigated arable land
- Sclerophyllous vegetation

THE PRIMARY ECOSYSTEM SERVICES IN RELATION TO BENEFICIARIES

The SPA Versanti occidentali del Monte Carpegna, Torrente Messa, Poggio di Miratoio are characterized by the ecosystem services of supply of drinking water and forage-pasture. The forests are capable of retaining water and slow down the flow of rainfall, contributing to the availability of drinking water even in the dry season. The productivity of the fields is important to maintain a community and its ecosystems, and also to offer significant economic impact in the region in terms of direct sales or use in local restaurants. Another service considered important for the area is the fish and wildlife resources that over time may provide a reasonable return of investment given the presence of the nearby hunting area.



1. The conservation of habitats generates benefits
2. Ecosystem services contribute to the wellbeing of the population
3. Potential beneficiaries may be citizens, farmers, and both private and public companies
4. Governance of Ecosystem Services can have a positive impact on the efficiency of the management of the Site

- Fruit trees
- Sparse vegetation
- Coniferous forests
- Broadleaf forests
- Mixed forests
- Annual and permanent crops
- Grasslands
- Complex crop models
- Bare rocks
- Land occupied by farming
- Non-irrigated arable land
- Urban fabric



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