

FOREST BIOENERGY IN THE PROTECTED MEDITERRANEAN AREAS

FOREST BIOMASS AS A RENEWABLE ENERGY SOURCE



Project co-financed by the European
Regional Development Fund



ForBioEnergy

Project ForBioEnergy

Forest Bioenergy in the Protected Mediterranean Areas

GENERAL INFORMATION

Funding programme: INTERREG MED 2014-2020

Programme priority axis: Priority Axis 2: Fostering low-carbon strategies and energy efficiency in specific MED territories: cities, islands and remote areas

Programme specific objective: 2.2: To increase the share of renewable local energy sources in energy mix strategies and plans in specific MED territories

Project duration: 30 months (November 2016 – April 2019)

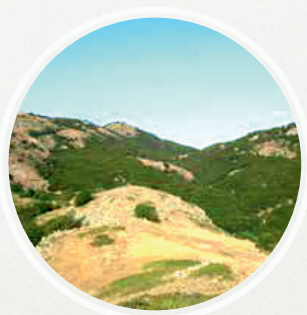
Project budget: 2,048,847.48 €

Budget co-financed by ERDF: 1,741,520.36 €

Type of project: Module 2 (M2) “Testing”

REGIONS / COUNTRIES INVOLVED

The project involves 1 Lead Partner and 8 Project Partners from 4 Mediterranean countries: Italy, Spain, Slovenia and Croatia and 4 Associate Partners from Italy and Croatia.



Italian partner group

is formed by the Lead Partner of the project - Sicily Region - Councilorship for Agriculture, Rural Development and Mediterranean Fishing - Regional Department for the Rural and Territorial Development, Municipality of Petralia Sottana and Enviland Ltd. Associated partners from Italy are: Madonie Regional Natural Park Authority and the Italian Agroforestry Energy Association (AIEL).



Slovenian partner group

is represented by the Slovenian Forestry Institute (SFI) and Regional Development Agency Green Karst Ltd (RDA Green Karst).



Spanish partner group

is represented by the Forestry Municipalities Association of Comunitat Valenciana (AMUFOR) and Valencia Official Chamber of Commerce, Industry, Services and Shipping (COCINSV).



Croatian partner group

is represented by Zadar County and Public Institution Velebit Nature Park. Associated partners from Croatia are: Public Institution for the Management of Protected Areas in Zadar County (Natura Jadera) and Advisory service - public institution for advisory activity in agriculture, rural development, fisheries and forest management.



OBJECTIVES

To foster bioenergy production in the protected areas providing transnational solutions for reducing barriers that hinder the development of the sector

To plan models in order to exploit the full potential of biomass and at the same time to preserve the biodiversity of the natural areas

In Europe, the current average level of energy from renewable sources is 12.5%, whereas in the Mediterranean many countries are below this threshold.

In the protected areas of the Mediterranean region, there is often a lack of coherence between the strategies and objectives of the European policy and concrete actions conducted at regional and local level.

In this regard:

ForBioEnergy analyses the main criticalities that characterize the currently included Mediterranean regions in order to identify common solutions to increase the energy use of biomass in a transnational context.

ForBioEnergy will implement innovative tools and operating procedures to overcome the existing gaps in the bioenergy sector in regions and countries with high potential through:

- defining a new regulatory framework and permit route
- removing technical and administrative barriers that hinder the energy use of biomass
- selecting best common practices of energy oriented management of Mediterranean forests
- planning tools for the design of forest-wood-energy supply chains
- identifying innovative common management and governance standards by involving of public and private stakeholders in the planning and management of forest-wood-energy supply chain

MAIN CRITICALITIES THAT ADDRESS CURRENT SITUATION

Planning processes absent or mainly oriented to passive conservation of forest ecosystems that impede the energy use of biomass

Inadequacy of the actual regulatory framework and permit route in the current management system of protected areas

Absence of innovative projects and insufficient involvement of key local actors in the bioenergy sector

Absence of participatory processes at local level in the potential provided by bioenergy sector that favours situations of conflict between local actors impeding the realization of innovative projects

FUTURE CHALLENGES

Promoting planning processes aimed at sustainable production of biomass in the context of multifunctional management of the Mediterranean forests

Drawing up an Action plan for a new regulatory framework and permit route promoting the energy use of biomass

Activating efficient policies to encourage the establishment of strategic and innovative projects

Promoting efficient policies to strengthen the local participatory process among the main stakeholders interested in the energy use of forest biomass



WP/ WORK PACKAGES

The project is implemented
within 4 work packages:

WP1 / **MANAGEMENT**

Technical and financial coordination of the project and communication with the Programme bodies. Qualitative and quantitative monitoring of activities, adherence to the project goals, budget and time frame as well as management performance. Management Structure of the Project, Administrative and Financial Issues, Monitoring and Evaluation Procedures.

WP2 / **COMMUNICATION**

The overall objective of dissemination and communication actions is to raise awareness of the important role of Public Administrations in fostering the development of the biomass sector. Therefore, the main target groups will be National/Regional/Local policy-makers, decision-makers, as well as sectoral key actors of each involved country.

Communication activities will contribute to guarantee the widest visibility of project results, make the general public and in particular policy makers more aware of the results and benefits achieved by ForBioEnergy, and increase their support for further development of regional pilot plans for protected areas/forest areas/rural areas. The dissemination of PJ achieved results will contribute to attract potential partners and favour the start-up of new project proposals.

WP3 / **TESTING**

WP3 is the heart of ForBioEnergy since the foreseen technical activities will contribute to achieving the strategic objectives of the project. WP3 aims to identify, together with local actors, and develop concrete joint actions in involved regions to promote the use of biomass for energy in protected areas. The activities of the project will provide operational tools for planning at different levels of detail to facilitate the implementation and management of the forest-wood-energy supply chains in the Mediterranean protected areas in accordance with the policies of biodiversity conservation. This objective will be achieved through the definition of:

- an Action Plan for shaping a new regulatory framework and permit route aimed at removing technical and administrative barriers that hinder the energy use of biomass;
- a multi-level planning process: regional, local and operating;
- a set of sustainability requirements and quality standards of forest biomass.

WP4 / TRANSFERRING

The transferring activity will be implemented through 3 concrete tools:

- 1.** Technical panels: a “meeting point” of key actors who will be actively involved in project activities according to their competences and capacities. Panels will ensure the setting-up of shared and integrated actions and will foster the exploitation of new initiatives.
- 2.** Training course: customized information and knowledge, based on the results of the project and of other relevant European projects and initiatives, will be provided to those key actors who can make the best use of them in the most adapted way.
- 3.** Agreements: key actors commitment to promote and adopt the planning methods and tools and action plans developed in the framework of the project.

EXPECTED RESULTS

- planning of sustainable biomass use for energy purposes in protected areas
- identification of threats and benefits derived from the increase of the biomass use in protected areas
- Action Plan for a new regulatory framework and permit route concerning biomass use in protected areas
- planning of a sustainable forest-wood-energy supply chain in protected areas
- strengthening knowledge and competencies in energy production from biomass in protected areas

MAIN TARGET GROUPS

1. Sectorial agencies: energy agencies, environmental agencies and local/development agencies;
2. Regional and local public authorities: policy makers and managers who shape the regulatory/authorization processes and the plans and technicians who draft the plans in the fields of energy, protected areas and rural development, including the management bodies of protected areas;
3. Interest groups including NGOs: management bodies of protected areas (other than public), associations/networks dealing with energy and environmental issues and associations of consumers;
4. Infrastructure and (public) service providers: energy utilities and forest management agencies;
5. Business support organisations: Chamber of

Commerce, Chamber of Trade and Crafts and business incubator;

6. Higher education and research: universities and research centres dealing with environmental protection and RES issues;

7. Education/training centres and schools: professional training centres;

8. Enterprises & SME: enterprises working in the energy production/supply and in the forest/wood sector;

9. General public: citizens.



FLOW
CHART
MODEL

SELECTED STUDY AREAS

Partner countries are at different stages of renewable energy production, but all have in common a big wood biomass potential within protected areas.

The environmental legislation is protecting biodiversity and natural habitats, and it is necessary to coordinate it with energy demands and forest management at an international level to reach full potential in producing energy from forest biomass.

Needless to say, it is highly important to preserve the current state of nature, but also to stimulate sustainable rural development.

The key message is to overcome the barriers (administrative, technical, social and economic) for the development of a forest-based bioenergy value chain as the pillar of bioeconomy at a local level, promoting the sustainable and subsidiary forest management as a tool for rural development in protected areas.



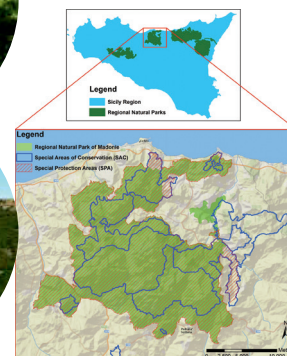
THE MADONIE REGIONAL NATURAL PARK

The Madonie Park has been instituted by the Regional Decree n. 1489 of 9/11/1989 of the Territory and Environment Regional Department. It extends over about 40.000 ha and includes 15 municipalities. The Park, that includes in its territory 10 sites of the Rete Natura 2000, is one of the most interesting territories in Sicily and in the Mediterranean basin, both for the high level of biological variety and entities that naturalised there.

The landscape is predominantly made up of forests and semi-natural areas (73% of the territory), 26% is agricultural land, while the remaining 1% is built-up land. In the Madonie Park, the forests with the highest wood biomass share are *Fagus sylvatica* (33%), *Quercus ilex* forests (23%), *Quercus petraea* and *Q. pubescens* (20%), whilst reforestation took place on 13% of the area.

The ownership of forests is almost equally divided into public (50.3%) and private (49.7%). Currently, in the Madonie Park, there is not an active chain related to the use of residual biomass resulting from ordinary forestry interventions for energy-related purposes. The biomass resulting from interventions on small surfaces is used according to local habits as firewood in private households or in the food service industry. This is equally true for both private and state-owned forests.

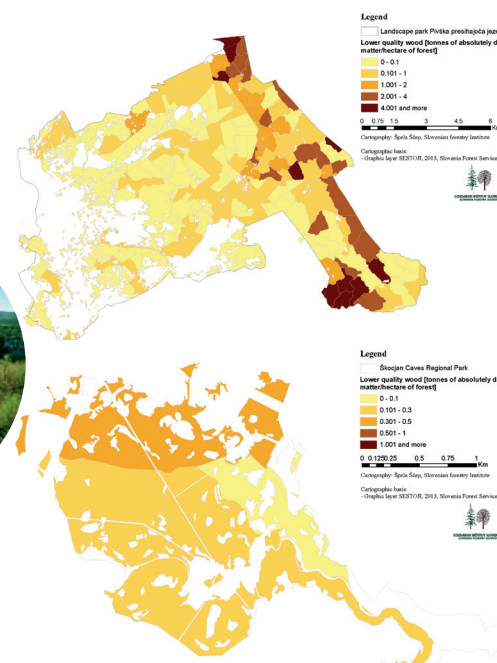
ITALY



THE SEASONAL LAKES OF PIVKA NATURE PARK

After heavy rainfall, Karst depressions fill with water and intermittent lakes emerge; therefore, they are called seasonal. There are 17 seasonal lakes in the Pivka region.

SLOVENIA



THE ŠKOCJAN CAVES REGIONAL PARK

The total surface area of the Škocjan Caves Regional Park is 413 ha. The central area of the park is situated in the south-west part of Slovenia, in the Municipality of Divača. In the area of the Škocjan caves RP priority is given to the conservation of the natural and cultural heritage and high biotic diversity.

SPAIN

In the Comunitat Valenciana (CV), Mediterranean forests cover 1,296,573.96 ha, 30% of which are municipal-owned represented by AMUFOR.

Natura 2000 covers almost 40% of the total Valencian territory (2,325,449 ha). Currently, there are 40 SPAs (722,970.56 ha) and 92 SCIs (625,744.04 ha). More than 80% of forests included in 22 Natural Parks are part of Natura 2000.

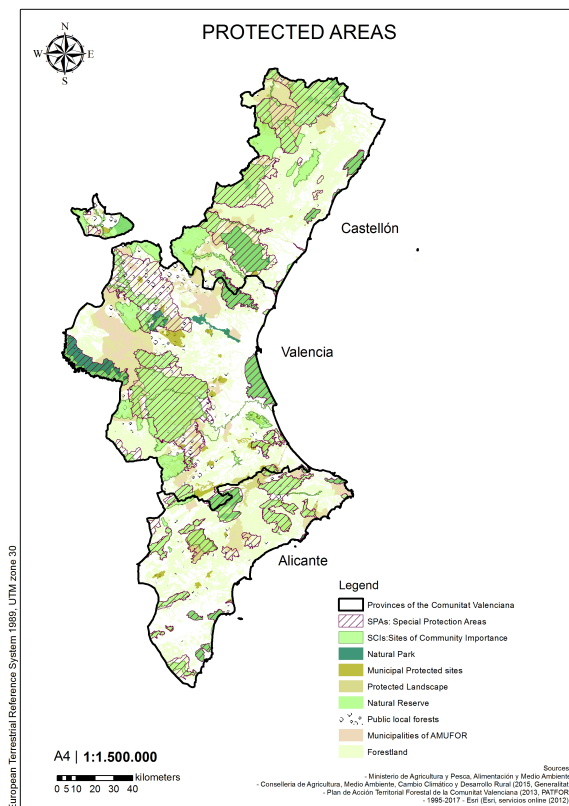
Selected areas:

Pilot areas in representative protected Mediterranean forests.

Selected pilot stands:

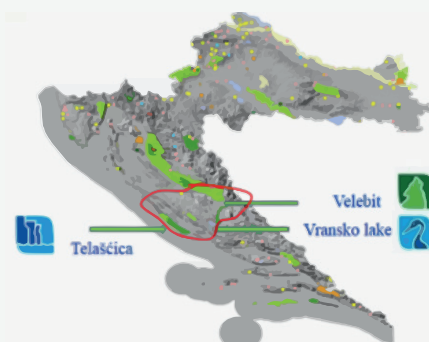
MATURE STANDS
AFFORESTATIONS

YOUNG STANDS
NATURAL REGENERATION
AFTER BUSHFIRE



CROATIA

In the Zadar County region, there are 22 protected areas within 6 protection categories. The total surface area of state-owned (108,726 ha) and privately owned forests (18,880 ha) in the Zadar County region is 127,606 ha. Selected pilot areas for Zadar County are:



NATURE PARK VELEBIT

The area located in Zadar County, with the total surface area of 35,782.41 ha is owned by the state, 24,986.52 ha of which is covered with forests. Privately owned forests cover 471.66 ha.

NATURE PARK TELAŠĆICA

The area owned by the state amounts to 147.77 ha and the entire area is uncovered productive land; privately owned forests cover 66.63 ha.

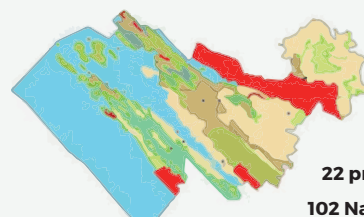
NATURE PARK VRANSKO JEZERO

The surface area of the nature park located in Zadar County, owned by the state, is 1,502.39 ha and privately owned forests cover 6.04 ha.

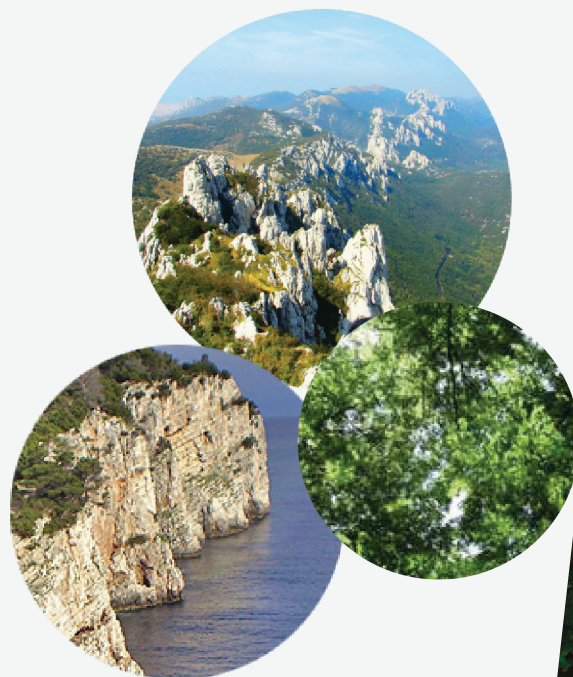
In Lika-Senj County, there are 2,368 km² or 58% of all national parks and nature parks in Croatia. The selected pilot area for Lika-Senj County is:

NATURE PARK VELEBIT

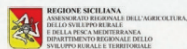
The area situated in Lika-Senj County represents one of the most impressive Karst phenomena in the world. The total surface area covered with forests 114,676 ha. State-owned forests cover 110,424 ha, while private and other forests cover 4,182 ha. Commercial forests cover 81,017 ha, protective forests 21,133 ha and special purpose forests 344 ha.



22 protected areas - 10,5 %
102 Natura 2000 sites - 36 %



PROJECT PARTNERS CONTACT DETAILS



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