

See mLa



Sustainable exploitation of biomass for bioenergy from marginal lands in Europe



About the booklet

This printable booklet aims at giving all relevant information about SEEMLA project, the actions and the results achieved during the whole project duration. For this reason the first draft of the booklet will be constantly updated by partners with latest status and milestones.

The project



The main objective of the H2020 funded EU project SEEMLA (acronym for “Sustainable exploitation of biomass for bioenergy from marginal lands”) is the establishment of suitable innovative land-use strategies for a sustainable production of plant-based energy on marginal lands while improving general ecosystem services. The use of marginal lands (MagL) could contribute to the mitigation of the fast growing competition between traditional food production and production of renewable bio-resources on arable lands. Hence, SEEMLA will involve farmers and foresters directly to the process, in order to minimize conflict potentials with traditional agriculture, and will contribute to building up small-scale supply chains for biomass local sites.

An essential part of the project is ensuring the environmental and socio-economic sustainability of the foreseen actions: impacts on biodiversity, fauna, flora, soil and water will be analyzed by a life cycle assessment (LCA), as well as strategies, policy guidelines and handbooks will be elaborated.

SEEMLA aims to assess the availability and suitability of MagL as alternative production sites for renewable resources in order to mitigate existing and potentially increasing conflicts between food production and nature conservation.

The identified MagL will be classified in order to develop specific land use options for different types of sites.

Political or administratively motivated restrictions to use MagL in the framework of an agri-environment scheme or as a mechanism to reduce food production, spacial planning or to safeguard socio-ecological developments (such as GHG savings, biodiversity etc.) will be assessed.

A set of specific indicators will be developed and implemented for assessing potentials for biomass production at MagL as well as ecosystem services provided like GHG savings or biodiversity by marginal sites and their valorisation due to land-use systems.

The project approach will be applied in 4 pilot areas, representing South, Central and Eastern Europe, in order to test the effectiveness of the methodology.

The actions



Understanding Marginal Lands – concept, indicator selection, evaluation criteria

The overall objective of this action is to define the term Marginal Lands (MagL) by reviewing the common understanding of MagL in all its categories. This will cover an overview and understanding of the scientific debate, status quo of sustainability constraints, assessment of MagL availability, plants variety (herbaceous and woody biomass), MagL harvesting techniques, transport and logistics and issues of final (energy) conversion pathways in the perspective of the MagL debate. At the end of this action basic criteria that can be used to identify and map MagLs will be set out.

Policy and Administrative regulations for biomass production on MagL for bioenergy

The overall aim of this work package is to map the policies of the involved regions that directly affect their work with MagL. These can be regional, national or EU wide policies, which affect the overall situation in the region. In a next step the policies will be analysed and recommendations will be developed mainly for the regional stakeholders. Therefore this WP provides recommendations to the EC for appropriate and practical improvements in the sustainable biomass exploitation from MagLs. Results will be implemented in the model regions and presented/discussed in the national workshops foreseen in the work package 7. The main objectives of this WP are:

- Analysis of regulatory frameworks and policies concerning biomass exploitation from MagLs for bioenergy production.
- Provide recommendations to the regional administrations for appropriate and practical improvements in the sustainable biomass exploitation from MagLs.
- Assess the availability of regional (renewable) energy plans and the inclusion of biomass production from MagLs in current regional planning in target countries.
- Develop recommendations and guidelines for successfully recognising the above mentioned relevant policies.

The actions



Environmental and Socio-economic assessment

WP 4 contributes to the comprehensive sustainability assessment executed in the SEEMLA project by covering the main pillars of sustainability, namely environmental, economic, and social issues.

The basic aim is to provide a complete analysis of the socio-economic performance and the environmental implications of both the general MagL use options and all specific SEEMLA case study sites referring to WP 5. With this, the stakeholders will have a profound basis at hand to decide via socio-economic and environmental aspects which bioenergy schemes on which MagL may be feasible under which conditions. The socio-economic and environmental assessment is split up in three tasks: the Life cycle assessment, the Life cycle environmental impact assessment and the socio-economic assessment. These are preceded by a task establishing all definitions and settings ensuring the equivalent accomplishment of all tasks.

Bioenergy production on MagL in pilot cases

The main objective of WP 5 is to exploit and perform experimental case studies for evaluating and optimizing biomass production tools for MagL under practical conditions. Case study sites will be used to assess the sustainability of good practice (environmental, economic, and social) and, further, to transfer existing knowledge on good practice to other underused MagL. Closely cooperating with WP 6, this work package will implement methods and tools at selected case study sites, located in the following European test regions: Lusatia (Germany), East Macedonia & Thrace (Greece) and Vinnitsa, Poltava Volyn, and Lviv (Ukraine). Feedback will be given to WP 6 for further refining the SEEMLA approach.

The actions



SEEMLA approach development: applications, guidebooks and policy recommendations

WP6 aims at developing a common European approach to the exploitation of MagLs for bioenergy production. The SEEMLA approach capitalizes the knowledge and experiences gained in the project by compiling the outcomes of WP2 to WP6 into applications and guidebooks, which can help interested stakeholders, investors, and policy makers in the identification of MagLs and their proper evaluation for bioenergy production. The overall exploitation strategy of MagLs for bioenergy production will be reviewed by engaged stakeholders, experts and administrators which will take part in webinar events organized in the WP7. Guidelines and manuals will be finalized and uploaded in this web site, serving as a support tools for interested stakeholders and policy makers.

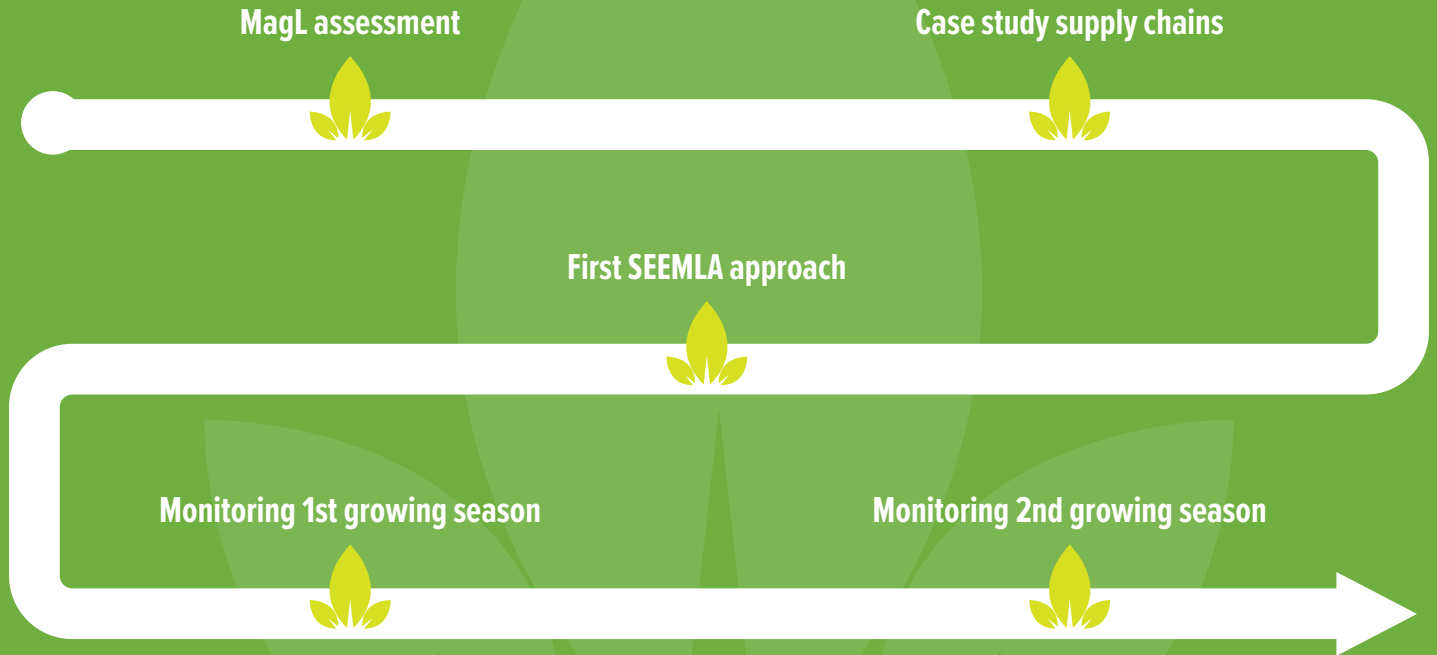
Communication, dissemination and stakeholder engagement

The overall aim of this work package is to communicate, disseminate and exploit the SEEMLA tools and methodology as well as the results and lessons learned from the project to target groups, intermediaries and other stakeholders to create a multiplier effect. Moreover it is the aim to promote a process of policy dialogue and mutual learning aimed at improving and coordinating the territorial policy in European countries.

This action will be implemented along the entire project duration and it is based on a four-fold strategy:

1. Development of communication tools and implementation of project communication action aiming at implementing an effective communication system throughout the entire project duration
2. Awareness raising and consensus building action for general public, administration, policy, farmers and foresters etc.
3. Horizontal and vertical dissemination and exploitation action aimed at transferring project achievement beyond project partnership and after project end
4. Networking promoting a process of policy dialogue and mutual learning aimed at improving and coordinating the territorial policy in European countries.

The actions



The consortium



Project coordinator Agency for Renewable Resources (FNR)

The Agency for Renewable Resources (FNR) is the central coordinating agency in Germany for the promotion of renewable resources.

www.fnr.de



Institute for Energy and Environmental Research (IFEU)

Founded in 1978, IFEU is an independent body for environmental research and consulting.

www.ifeu.de



Decentralised Administration of Macedonia and Thrace (D.A.M.T)

The Decentralised Administration of Macedonia and Thrace (D.A.M.T) is a public organization responsible for the regions of Macedonia and Thrace.

www.damt.gov.gr



Brandenburg University of Technology Cottbus-Senftenberg

BTU Cottbus-Senftenberg is the second largest university and the only technical university of the State of Brandenburg, Germany.

www.b-tu.de



Institute of Bioenergy Crops and Sugar Beet (IBC&SB)

A leading scientific institution for conducting of integrated research on breeding, seed farming, seedling production, industrial growing and processing of bioenergy crops.

www.bio.gov.ua



Legambiente Onlus

Founded in 1980, is the most widespread environmental organization in Italy, with 20 Regional branches and more than 1.000 local groups.

www.legambiente.it



Democritus University of Thrace (DUTH)

Established in July 1973, the University is currently operating seven faculties and eighteen departments in four cities of Thrace.

www.duth.gr



Salix Energy Ltd

Established in 2010 and its main activity is growing short rotation willow crops for biomass production.

www.salix-energy.com



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www.seemla.eu

