



Fact sheet no. 1

AT A GLANCE

Title

Advanced multifunctional forest management in European mountain **ranges**

Aim

To investigate the potentials and limitations of current and possible future approaches to mountain forest management for providing portfolios of ecosystem services under current and future climatic and socio-economic conditions

Instrument

Large scale integrating, collaborative project, FP7 (KBBE)

Total cost

3,818,788.71 €

EC Contribution

2,991,077.00 €

Duration

36 months

Start Date

01/02/2012

Consortium

16 partners from 11 European countries

Project Coordinator

Institute of Silviculture, University of Natural Resources and Life Sciences Vienna, Austria

Project Web Site

www.arange-project.eu

Key Words

multi-functionality, ecosystem services, natural hazards, climate change, forest management

CONTACT

mj.lexer@boku.ac.at

RATIONALE

The sustainable provision of ecosystem services in and from mountain regions is of crucial importance to an array of stakeholders and society in general. Mountain ecosystems can only continue to provide all these services in a rapidly changing world if a wide range of ecosystem services is considered in forest management at local, landscape and regional scale. Dealing with these challenging issues this EU funded project (7th Framework Programme) builds on **seven case study regions** (see Figure 1) in major mountain ranges throughout Europe covering a wide range of forest types, socio-economic conditions and cultural contexts. The project addresses **four main ecosystem services** in all regions plus additional services in each region:

- Timber production
- Protection against gravitational natural hazards (e.g. erosion, rockfall)
- Climate change mitigation via carbon sequestration (as well as bioenergy production)
- Nature conservation and the maintenance of biodiversity

Non-timber forest products, landscape aesthetics for recreation as well as use of forested landscapes by game and livestock species will be dealt with as well. The case study regions will promote interdisciplinary and transdisciplinary research efforts via regional stakeholder panels related to various topics within the project (e.g. analysis and development of multifunctional forest management, demonstrate the applicability of the planning tools, develop and test forest models and models for the provisioning of ecosystem services,...).

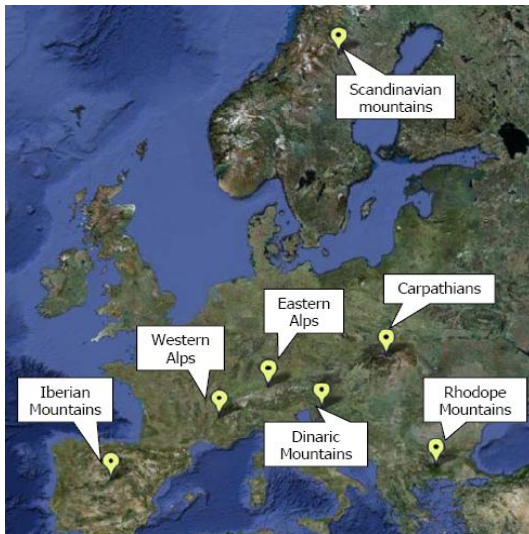


Figure 1: Case study regions within the ARANGE project

Project objectives

The overall aims of ARANGE are to investigate the potentials and limitations of current and possible future approaches to mountain forest management for providing portfolios of ecosystem services under current and future climatic and socio-economic conditions, to identify related risks and uncertainties and to translate the scientific state of knowledge about the efficient provision of ecosystem services from mountain forests into decision support for policy makers and forest practitioners. The specific scientific and technological objectives are:

- Produce a consistent spatial and temporal database (incl. environmental, economic and social information)
- Adapt various forest ecosystem modeling tools to simulate past and future forest development under a variety of management regimes
- Analyze policy and governance conditions and design future land use scenarios
- Develop methods to support multifunctional mountain forest management planning
- Apply and verify the usefulness of the **DecisionSupportToolBox** for mountain forest management
- Facilitate stakeholder interaction and disseminate information and tools

In each case study region typical management and planning problems will be solved. Comparative analysis of policy and governance systems, silviculture and harvesting approaches will reveal potentials for future development.

The involvement of **five SME partners** in research and development activities emphasizes the project mission to produce usable knowledge and tools for practical mountain forest management. Outreach activities will focus on additional SMEs in the case study regions and beyond as potential users of ARANGE output.

Further information

For more details and current status quo of the project please visit the ARANGE website

www.arange-project.eu

CONSORTIUM

University of Natural Resources and Life Sciences Vienna (BOKU)

Swiss Federal Institute of Technology Zürich (ETH)

Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture (IRSTEA)

Technical University Munich (TUM)

Swedish University of Agricultural Sciences (SLU)

University of Ljubljana, Biotechnical Faculty (UL)

National Forest Centre (NFC)

Forest Research Institute – Sofia (FRI)

National Institute for Agriculture and Food Research and Technology (INIA)

European Forest Institute (EFI)

University Graz (UNIGRAZ)

The Institute of Forest Ecosystem Research (IFER)

Geoexpert Research and Planning GmbH (GEO)

Stichting BirdLife Europe (BLE)

Aranzada Gestión Forestal, S.L.P. (AGF)

RTD Services – Dr Stephen Matthew Webb (RTDS)