

Newsletter

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Merit based income from sustainable land management in mountain farming
<http://www.umweltbuero.at/merit>

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Introduction

MERIT is a research project under the umbrella of the RURAGRI ERA-NET and it is a synonym for “Merit based income from sustainable land management in mountain farming”. Within the project we are dealing with result-oriented payments for farmers in mountain agriculture as an innovative form of agri-environmental schemes. We will provide policy recommendations that are based on case studies in France, Germany, Switzerland and Austria. It is crucial for the project to understand how farmers can take more responsibility for sustainable land management and biodiversity in mountain regions.

Work done in the MERIT project up to now

1. Overview of actual agricultural policies and existing result oriented measures in the participating EU-countries and in Switzerland. Based on work in case studies and several workshops with farmers and stakeholders SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of results-oriented approaches was undertaken.
2. Farm level work in case studies with 79 farms including interviews and field visits was undertaken in the case study areas Carinthia (AT), Canton Lucerne (CH), Upper Allgäu (DE) and Vercors (FR). Together with farmers we designed solutions for result-oriented schemes. A central result is fact sheets, which are describing land management and biodiversity indicators for each farm. A further result is a scientific analysis of interviews with farmers on their views of topics such as
 - a) motivation to take part in agro environmental schemes,
 - b) their considerations regarding result-oriented measures to maintain or increase biodiversity at farm level,
 - c) their need for training and support to implement result oriented measures for more biodiversity
3. The ongoing work is the upscaling of the farm level results and analysis of transferability of innovative result oriented measures to other farms and regions. For details see in the section WP3-Vester modelling.



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Publisher: eb&p Umweltbüro GmbH, Bahnhofstraße 39/2,
A - 9020 Klagenfurt, Austria
Tel.: +43 463 516614
E-Mail: klagenfurt@umweltbuero.at
www.umweltbuero.at

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Results

Work Package 2: Case study regions - farm level analysis

The objectives of work package 2 were to select different farms per country to evaluate the present income, motivation and qualification of farmers, knowledge about ecosystem services and their land use and biodiversity management. Therefore, farmers were interviewed about the farming activities, and vegetation surveys have also been carried out on selected farms.

In total, 79 interviews have been carried out with farmers in the different partner countries of the MERIT project (Germany and France 15, Austria and Italy 14, Switzerland 21). Farmers were asked amongst other things about their general farm characteristics, farming practices, challenges in mountainous farming, biodiversity management, knowledge and experience of result-oriented measures, and needs for training. Landscape analyses and vegetation surveys on pastures and meadows have also been carried out in the different study areas by mapping habitat diversity and landscape structure and by making an inventory of character species and differential species of plants on grasslands.



... and Vercors (France) study areas on which vegetation surveys had been carried out. In the Vercors the result-oriented measure "Flowering meadows" exists.



The Merit team discussing with an Allgäu farmer which had been interviewed in WP 2



Meadows in the Allgäu (Germany) ...

Some results of the survey

A typical farmer runs the farm for 10 to 25 years. The average farmer's age is 46 years old, however, there is a wide age range, with the youngest being 26 and the oldest being 68 years old. Half of them have an external job. Farm managers are mostly men (82%), and a few are women (10%). The remaining 8% are couples which co-managed the farm.

Most farms analysed in the MERIT project have livestock production of some sort; some farms combine several types of productions while others specialize in one type. Specialist milk production is the most prominent type of production and applies to 61% of all the farms studied. Other types of production are also important, though to a lesser extent, such as cattle rearing which applies to 25% of farms, with the majority of these farms being located in Italy. Suckler cows were found in 16% of all farms analysed. Most of them were found in the Austrian study area. Sheep and goat production applies to 13% of farms and is mainly located in France.

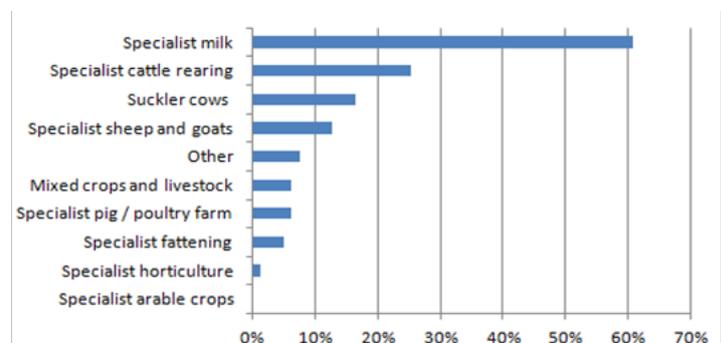


Figure 1: Main types of production of the farms studied.

On average, farmers in the different study areas have contracted between 0-8 agri-environment measures (AEM). AEM contracts per farm are quite diverse: the farmers in the study areas in Germany, Austria, and Switzerland have contracted an average of 4 to 5 AEMs. However, the farmers in France and Italy have only contracted between 0 and 2 measures on average. This can be explained by the fact that measures proposed in France and Italy are often “broader”, whereas in the other three countries such measures are split into more specific measures, e.g. management of hedgerows or specific animal or plant species. Among the different AEMs are flower meadows in France, extensification of grasslands (Austria, France, Germany, Switzerland), contractual nature conservation (Germany), alpine pasture management (Austria, Germany, Italy), mowing of steep land (Austria, Germany), hedge management (Switzerland), and preservation of orchards or fruit trees (Switzerland, Austria). Some farmers also receive support for organic farming (France, Austria, Germany, Italy, Switzerland).

Out of the farmers who have contracted AEM, 37 % have contracted result-oriented measures and all of these farmers are only found in Switzerland and France. In fact, all 21 interviewed farmers in Switzerland have contracted at least 2 result-oriented measures under their biodiversity program for specific ecological quality. Although quite a lot of different constraints and potential problems were mentioned by farmers, a little over half of them stated that they would prefer a result-oriented approach. About one third favoured the measure-oriented approach, and less than 10 % have an equal preference for both approaches.

In conclusion, many of the farmers already have different agri-environment measures in place, and in two study areas even a significant number of farmers are already engaged in result-oriented measures. More than half of the farmers are generally favourable to result-oriented measures, but they also mention a lot of constraints and problems which would need to be overcome before contracting more such measures.

Work Package 3: Impact on regional level, Vester Model

The overall objective of this WP is to upscale the impact of innovative result-oriented and merit-based measures applied on farm level to a territorial/regional level. The upscaling process will be assessed with selected qualitative and sustainability criteria on a regional scale used to design a “Vester model”.

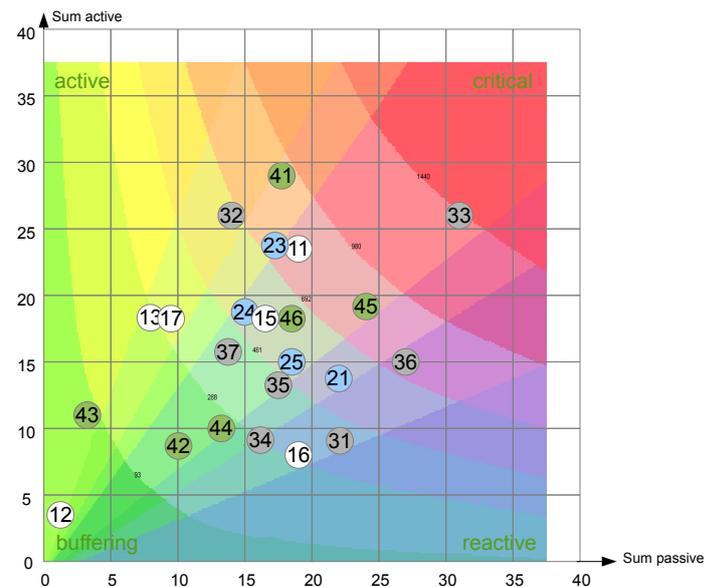
An analysis of the complex system of “Biodiversity in Mountain farmland” needs to consider several economic, social and environmental parameters. In this system all the parameters are interlinked and influence each other to different levels of intensity. Trying to understand the system and trying to forecast the effects of innovative administrative approaches such as result-oriented payment schemes requires a suitable method. The MERIT team decided to use Frederic Vester’s „Sensitivity Model“ for this task to gain a deeper insight into the causes and effects. The model is based on expert knowledge and led us through several steps:

- Defining a set of relevant parameters which consists of a maximum of 25 parameters
- Describing mutual interactions between parameters in a qualitative and quantitative way
- Analysing the roles of parameters in the system: which

indicators are strong levers in the model, which parameters are indicators, which are buffering the system, which are neutral

- Estimating future developments using scenario techniques with the model
- Discussing scenario results with about 50 experts using a questionnaire

The next graph is describing the roles of each parameter in the system that we are dealing with: active parameters (light green-yellow-orange) are steering the system, critical parameters (red) could make the system collapse, buffering and reacting (indicating) parameters (dark green – blue).



Variables	
Economy	11 Label marketing/ direkt marketing 12 Input prices for farms 13 Prices for biodiversity products 15 Percentage of farm income from public 16 Farm income 17 Income possibilities from tourism
Environment	21 Diversity of landuse types 23 Grassland use intensity 24 Livestock density 25 Diversity of Lifestock
Society	31 Public image of farmers 32 Willingness to pay for biodiversity products 33 Farmer willingness/ acceptance/ motivation 34 Attractivity of landscape 35 Work load for farmers 36 Farm land abandonment 37 Cooperation between local actors
Administration/ Policy	41 Agri-environmental schemes 42 Research/innovation/evaluation 43 Mandatory environmental regulations 44 Administration/ control of AEM 45 Training and education on biodiversity 46 Result based agri-environmental schemes

Figure 2: Parameters in Vester model

Strong levers or even critical parameters are the following (listed by importance):

- 41 – AEM Schemes
- 33 – Farmer willingness/acceptance/motivation
- 32 – Willingness of customers to pay for biodiversity products (products with environmental specifications)
- 23 – Grassland use intensity
- 11 – Label marketing/Direct marketing of products with environmental specifications
- 45 – Training and education of farmers on biodiversity and environment

A brief summary of this modelling: As can be seen from the above graph, result orientated schemes are a fairly neutral parameter, especially compared to agri-environmental schemes in general. But the model shows very positive effects if result orientated schemes can be implemented: increase in livestock diversity, higher diversity of land use practices, decrease of land use intensity. To implement such schemes it will be necessary to invest in training and education for biodiversity and provide attractive premiums for result-oriented schemes. On the other hand we have to acknowledge that such measures will bring higher costs for administration and public payments.

Next Steps

Publication of MERIT Policy Handbook

By the end of October 2015, the MERIT project partners will publish a policy handbook based on the empirical results of the project. It will provide policy recommendations for effective design, implementation and governance of result-oriented measures for biodiversity in mountain farming.

The handbook will include...

- ... an overview of what result-oriented measures are all about,
- ... real-life examples of implemented result-oriented measures,
- ... the advantages and disadvantages of result-oriented measures,
- ... specific recommendations for the design, implementation and governance of result-oriented measures for biodiversity in mountain farming.

The Policy Handbook will be published on the project website: <http://www.umweltbuero.at/merit>

Meetings/Events

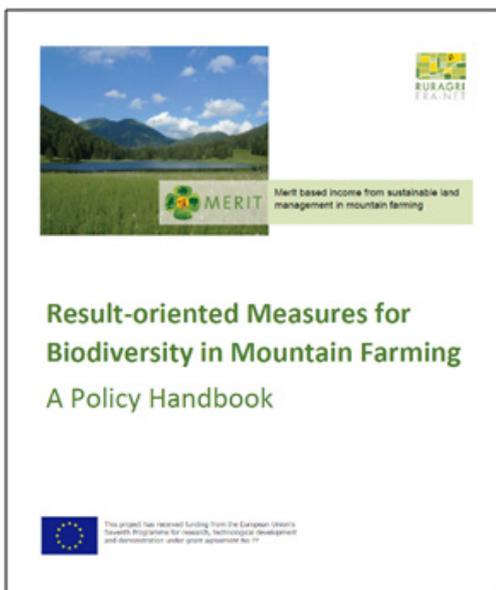
Final Conference in Vienna

We will organize the final conference in Vienna on Monday 12 October 2015 and Tuesday 13 October 2015. There will be an excursion with a visit to a farm near Vienna which is currently participating in the Austrian Pilot project "Result based nature protection plan". Participants in the excursion are welcome to discuss these topics with the farmers.

The target group of the conference are policy makers, farmers, representatives of administration and stakeholders.

Contact

DI Dr. Monika Dubbert
Tel: +43 463 516614-18
E-Mail: monika.dubbert@umweltbuero.at



The handbook addresses policy-makers as well as public and private organizations dealing with agricultural and environmental policies. The focus will mainly be on semi-natural grasslands and other ecologically valuable habitats and landscape elements in mountain regions in Europe.