

Tools of assessment and monitoring for sustainable agriculture in mountain areas. An experience in Alps (France , Austria, Italy, Switzerland)

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Objectives

To present a multi-method approach of sustainability combining inter-discipline insights (ecology, agronomy, sociology, economy, geography).

To highlight the processes and key factors related to the local implementation of action plans in favour of sustainable agriculture.

Background

The current challenge faced by farmers and actors in agricultural sector in Alps is to render the concept of sustainable agriculture into operational action plans adapted to mountain agriculture.

The multifunctionality is recognised as a key factor of sustainability. The construct of multifunctionality requires to bridge the farm level with the territory level and develop the related and needed scientific analysis and tools for action.

Four pilot areas across the Alps decided to build a partnership between actors and researchers responding to the new challenges faced by agriculture of multifunctionality and sustainability. This partnership is concretised through an European project of research and demonstration so-called IMALP “Implementation of sustainable agriculture and rural development in alpine mountains”.

These pilot areas are considered as “laboratories” of sustainable agriculture, and the project is implemented through 4 key phases:

1. In each pilot area, a local group involving farmers, elected officials and civil society is constituted.
2. Action plans for sustainable agriculture are discussed and designed by the local group, then implemented.
3. The impact of action plans at the 3 levels is evaluated by an interdisciplinary team of scientists and experts.
4. Methods and tools to disseminate the results are proposed.

The main problems regarding sustainability of agriculture in these areas are :

- environmental: manure pollution, odours nuisance, quality of countryside landscape to be maintained.
- economic: agricultural income remains lower
- social: overloads of work, farmer feeling themselves as at the margin; living in remote areas.

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Methodology

Two approaches:

1) An analysis of the processes (characterising changes in progress and the role of action plans within process of change). This analysis is based on 2 methodologies:

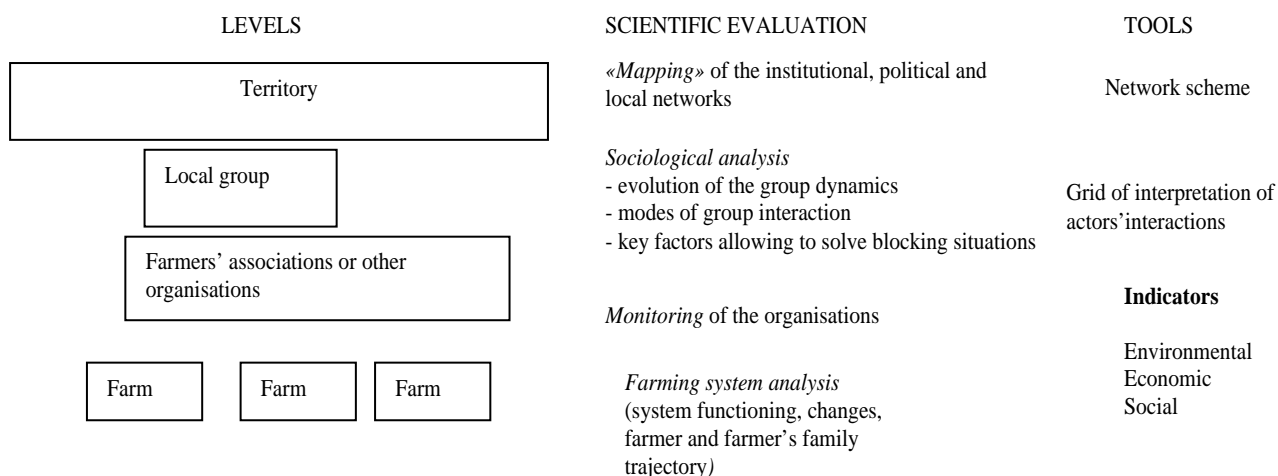
- a farming system analysis : assessment of farm sustainability according to (i) farmer's objectives, constraints and assets (characterisation of farmer's strategic choices) and (ii) territorial objectives; characterisation of the process of change on the farm (links between strategic choices, actions, context and consequences).

The on-farm survey is conducted as a semi-directive interview with room for the farmer to express himself and explain his practices and choices.

- sociological analysis of actors processes in terms of governance and sustainability at local and territorial level. The objective is to evaluate the capacities of the local group members to negotiate in a collective way a broad agreement about the goals, the rules, and the means of change towards sustainable agriculture.

2) Development of a set of indicators as a quantitative or semi-quantitative measure in terms of sustainability of the local agriculture.

The objective is to track sustainability progress through a set of indicators that will be interpreted in relation with the analysis of processes.



Results of the study

In the poster, we will present several examples of results and tools elaborated to evaluate sustainability and multifunctionality of alpine agriculture.

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