Summary

Agricultural activities, now and in the future, contribute to a great extent to people's well-being in a region. Influences on farmers' decision-making have to be carefully governed to enable a sustainable development.

Policy Context:

- **Multifunctional landscapes and diversity** should be maintained and promoted to support a sustainable development
- Agricultural economic policies should not only be designed for food production, but also for **other benefits**
- Policies and related research efforts to address socio-economic and biophysical diversity should be more **regionalized**
- **Soft factors** need to be considered when implementing subsidies (increase accessibility to information, provide a less bureaucratic application process, increase support for innovation)
- The importance of **understanding farmer behavior** in designing agri-environmental policy has to be highlighted

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EcoChange

Briefing Sheet WP6.4 ISA
2012

Integrated Sustainability Assessment

Developing conclusions for people

The EcoChange project analysed how human life might be impacted due to changes in biodiversity and land use. Besides modelling these potential impacts, EcoChange implemented regional participatory processes in the following 3 areas:

Belgium: River Dyle's catchement in Brabant Wallon province: a lowland, intensively-managed agricultural area with intense peri-urbanisation processes and strong human pressures on biodiversity.

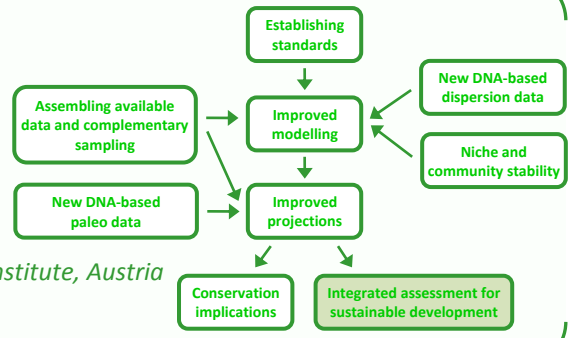
Romania: Sacueiu, Poieni: an economy in transition with important socio-economic drivers, increased economic input and migration.

Switzerland: Canton Aargau: an example of a mountainous region that is sensitive to environmental change (climate, social and economic change) with important ecology and high (policy) protection.

EcoChange Briefing Sheet

Work Package 6.4
Integrated Assessment for sustainable development

Work Package Leader
Ines Omann
Sustainable Europe Research Institute, Austria
ines.omann@seri.at



Integrated Sustainability Assessment (ISA)

The participatory process of this activity included an integrated sustainability assessment (ISA), in order to develop a shared interpretation of sustainability within the given context. This interpretation was applied in an integrated manner, in order to explore solutions to persistent problems of unsustainable development. The ISA as a cyclical, iterative and participatory process based on four stages:

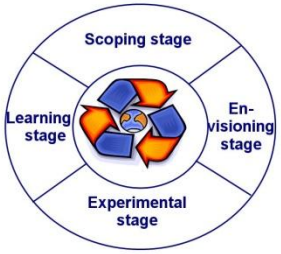


Figure 1: The ISA-cycle (Source: Weaver and Rotmans, 2006)

The scoping phase

In this stage we developed a shared interpretation of the different perspectives on and dimensions of sustainability for the respective social-ecological system (city, region, country, sector, etc.) The scoping phase consisted of the **selection of the case studies** and the definition of their focus, the **selection of stakeholders** in each case study region, **interviews** with these stakeholders and experts, **desktop research** on existing literature and political frame conditions in the case study regions, and **workshops** with the stakeholders to discuss the importance of the selected ecosystem goods and services (EGS) as well as the pre-developed scenarios..

The envisioning phase

As the ISA aimed at initiating a sustainable development, we developed scenarios and visions explicitly aiming at sustainability with the stakeholders. By constructing a picture of a desirable future and elaborating pathways towards it in a second step, we used backcasting as a method for vision development. The resulting scenarios helped to analyse impacts of possible future developments.

In each of the three case studies, we conducted a **workshop** with regional stakeholders in order to discuss the plausibility and assumptions of the scenarios and included their inputs in the final scenario narratives.

The experimenting phase

In this stage we tested the suitability of visions and policy proposals in terms of their consistency, adequacy, robustness and feasibility to develop a sustainable pathway, using an **agent based model** that simulated the behaviour of different farmers' typologies in regard to their decisions to manage their land, as well as a **qualitative approach** which assessed the development of the chosen sustainability indicators in regard to the scenarios developed.

The evaluating and learning phase

Finally, we identified the views of the stakeholders on the ISA-process, -tools and -results and evaluated the social and individual learning processes in the ISA. Besides individual learning, the **workshops** aimed at social learning effects, as people get to know the perceptions, feelings, needs of other participants.

Results – the three case studies

Belgium: Current ways of management are very profitable in the study area, which inhibits a strong development of organic production. Nevertheless, the stakeholders also see first trends towards organic production in neighbouring regions that might be imitated in Brabant-Wallon, and mentioned soft factors that might support organic production (i.e. legal changes in land rental, local market strategies, communication).

Romania: Due to the historical development of the case study region and its current situation, Săcuieu and Poieni are regions in transition. It can be assumed that there will be essential and fundamental changes in the regions within the next 40 years. While most participants agreed with the principles of sustainable development, they described it in general as very idealistic and difficult to achieve from the current situation, with aging population and limited support from the state and EU. Thus the sustainable development of the area is mostly dependent on support from the Romanian state or EU policies.

Switzerland: Interestingly, all three scenarios predict an increase in food production due to the expected climatic and technological developments. There will also be a strong trend towards organic agriculture. But the interviews also show that most of the farmers mainly focus on economic aspects in their decision-making – meaning that policies must be designed in order to support the development of a sustainable agriculture which also includes "soft factors" such as landscape management etc.