



## Research Division Sustainability Assessment and Agricultural Management



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Federal Department of Economic Affairs,  
Education and Research EAER  
**Agroscope**

Swiss Confederation

## Vision

The 'Sustainability Assessment and Agricultural Management' (SAAM) Research Division:

- Contributes significantly to the improvement of the economic, ecological and social sustainability of the Swiss agriculture and food sector by offering scientific decision support to policy-makers and other stakeholders.
- Has won national and international recognition for its high scientific performance. This is borne out by its high-calibre scientific publications, its participation in national and international research consortia, and its expert reports, which are sought by important stakeholders.
- Is Switzerland's primary contact for holistic sustainability assessment along the food value chain.
- Has a national and international reputation for its interdisciplinary competence in the subject areas of digitalisation and technology impact assessment in agriculture. The aims to co-create knowledge with agricultural practice in partnership with the 'Digital Region of Application' experimental station and the Swiss Future Farm.





## Implementation of the Vision

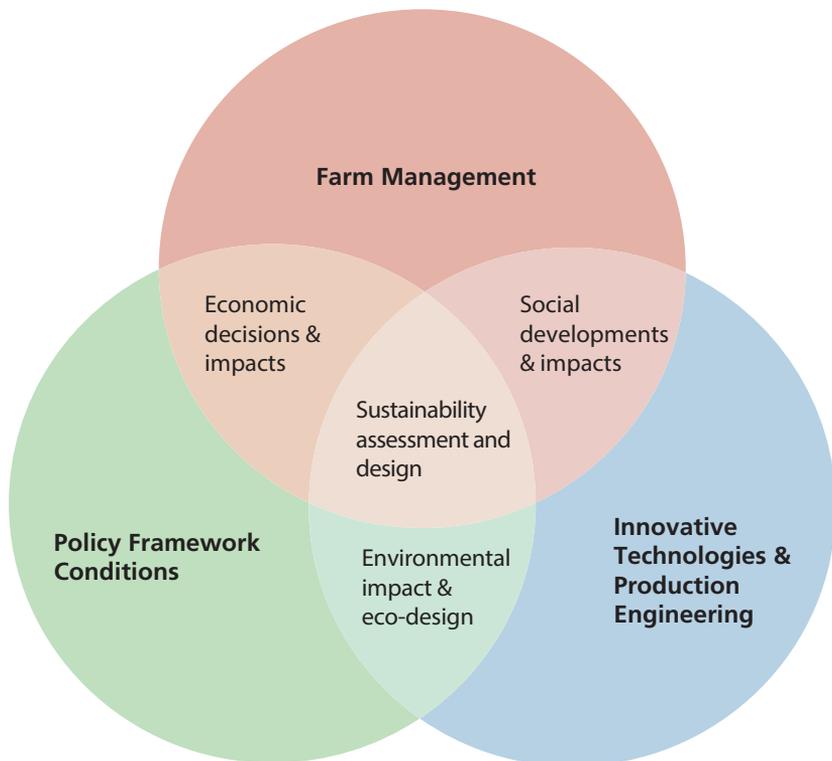
To implement the vision, the 'Sustainability Assessment and Agricultural Management' Research Division pursues content-related, methodological and value-oriented approaches:

- **Goal-orientedness.** The issues addressed in the 'Sustainability Assessment and Agricultural Management' Research Division contribute to the economic, ecological and social sustainability of the Swiss agriculture and food sector.
- **System thinking.** Interdisciplinary cooperation via the research groups within the 'Sustainability Assessment and Agricultural Management' Research Division and together with Agroscope's in-house and external research partners enables the holistic observation and evaluation of production systems and agricultural measures from an agronomic, economic, ecological and social perspective.
- **Methodological competence.** The work of the 'Sustainability Assessment and Agricultural Management' Research Division is methodologically geared to quantitative data collection, evaluation and modelling. Qualitative and participatory approaches are used in a mix of methodologies and for the co-creation of knowledge.
- **Application-orientedness.** The research projects of the 'Sustainability Assessment and Agricultural Management' Research Division have a high relevance for stakeholders of the Swiss agriculture and food sector as well as for Swiss society. The challenges of the future are anticipated and taken into account in the development of decision-support aids and tools. Knowledge transfer to agricultural practice and the provision of information to the public are actively cultivated.

## Subject Portfolio of the Research Division

With its competencies in agronomy, sociology, economics and life-cycle assessment, the 'Sustainability Assessment and Agricultural Management' Research Division has a strong interdisciplinary focus. The objects of our analyses are first and foremost the farm, the agricultural sector, the value chain and production systems. The sustainability assessment is performed on the basis of economic, ecological and social factors.

Below, we introduce the subject portfolio of the Research Division, and describe the models, tools and data resources used.

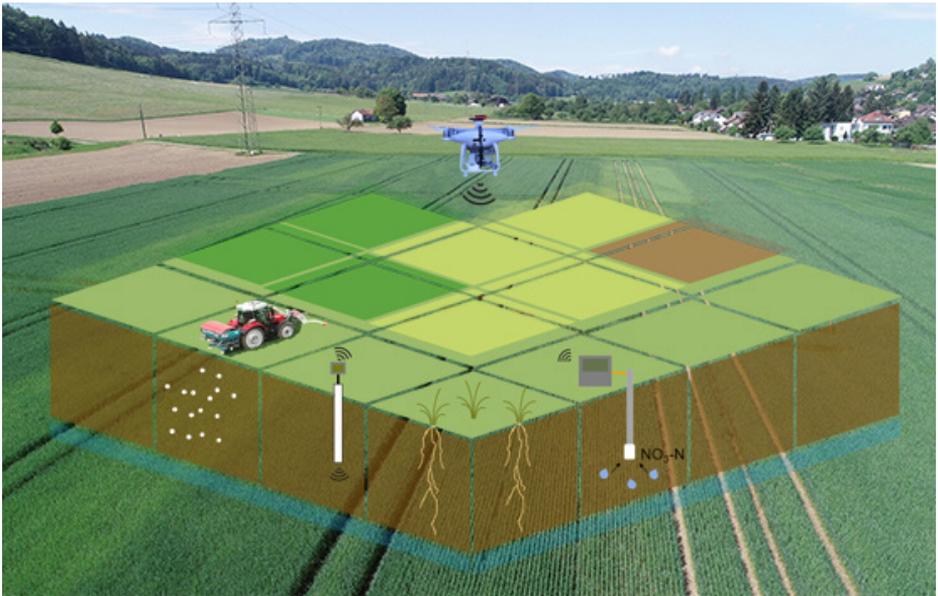


## Sustainability Assessment – Economic, Ecological and Social Dimensions

The 'Sustainability Assessment and Agricultural Management' Research Division works in an interdisciplinary and system-oriented manner. The Division's research projects aim to better understand and anticipate operational decisions and their effects on economic, ecological and social aspects. The social developments and effects of changed constraints and operational decisions are analysed and recommendations are derived. Based on the comprehensive evaluation of process-engineering, operational or sectoral developments, the further development of all pillars of sustainability is a further important concern of the Research Division aimed at improving the performance of the Swiss agricultural sector. In addition, the farm-, sector- and product-focused models and tools are further developed in various interdisciplinary research projects in such a way that further aspects of the agriculture and food system can be depicted and evaluated with the aim of providing nutrition and health policy recommendations.

*We develop and maintain tools and models for the economic, ecological and social sustainability assessment of various measures at farm and sectoral level as well as production systems and products. Our tools can be used to improve the sustainability of farms.*





## Innovative Technologies and Production Processes – for Sustainable Production

Major advances in sensor technology, information and communication technology (ICT) and data processing are blazing new trails in all areas of agricultural production. Sensors record different technical and environmentally-relevant parameters, and actuators carry out instructions. In future, central cloud-based evaluation systems will allow the various production processes to be managed in a data-based, significantly more precise manner. Furthermore, the data collected improve traceability and provide information on the production processes and their effects on the environment, labour and profitability. Data are processed in the research projects such as to allow their inclusion in the optimisation of individual production processes and operational management.

*Together with partners from business and practice, we develop and optimally integrate selected technologies into agricultural production systems in order to render these systems demonstrably more sustainable. We develop sustainability assessment indicators and analyse the economic, ecological and social impacts of innovative technologies and new production processes for animal and plant production.*

## Operational Management – for Sustainable Swiss Farms

Operational management encompasses all business actions taken on the farm. This includes the procurement of inputs, the sale of agricultural products, the provision of public goods such as biodiversity, and work design and work organisation, including in the context of part-time activities. These decisions impact the economic, ecological and social sustainability of agriculture, and can be used e.g. for eco-design at farm level.

*Our research makes a contribution to improved operational management with the aim of increasing efficiency, lowering the cost burden and workload, reducing negative environmental impacts and improving ecological services, so as to contribute to a more competitive Swiss agricultural sector with a high quality of life. We are also developing decision-support tools for extension and practice for this purpose.*

## Agricultural and Environmental Policy – for a Sustainable Sector

Various models and tools are used to analyse the impacts of agricultural and environmental policy on the farms and value chains of the Swiss agriculture and food sector. The aim here is to support decision-makers from policy and practice in creating suitable constraints and measures for continuously improving the sustainability of the Swiss agriculture and food sector.

*We provide scientific decision-making bases for the development of targeted measures and make recommendations to administrators and economic operators along the value chain of the agriculture and food sector.*





Agroscope  
'Sustainability Assessment and Agricultural  
Management' Research Division  
Tänikon 1  
8356 Ettenhausen  
Switzerland

Tel. +41 58 480 31 31  
[www.agroscope.ch](http://www.agroscope.ch)



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Federal Department of Economic Affairs,  
Education and Research EAER  
**Agroscope**

Swiss Confederation