

Simulation model PASMA

Background and application from the perspective of the Managing Authority

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Background of the application of PASMA

- How to assess the overall impact of the CAP in Austria?
- No instrument / reference available at the MA
- Simulation model as BASELINE:
 - Simulation of production and income effects of expected price and policy scenarios
 - Regional & structural consequences

Background of the application of PASMA

- „**Positive Agricultural Sector Model Austria**“ developed by the University of Natural Resources and Life Sciences (BOKU) Vienna in 2002
- First application: assessment of medium-term consequences of the EU membership for Austrian agriculture in 2006
- Already established & useful model: progressively developed together with MA
- PASMA well suited for detailed sectoral analyses

RDPs since 2000: Evolvment of the PASMA modelling

00-06

First intentions to assess the overall impact of the CAP since the EU membership (without modelling)

Basic indicators such as employment , standard gross margins, added value, regional distribution

07-13

First application of PASMA (ex-post)

development of **counterfactual scenarios**

Change in:
gross value added, GHG emissions, land use

14-20

Mid-term and ex-post
Question 24,27, Impact indicators 2,3,7

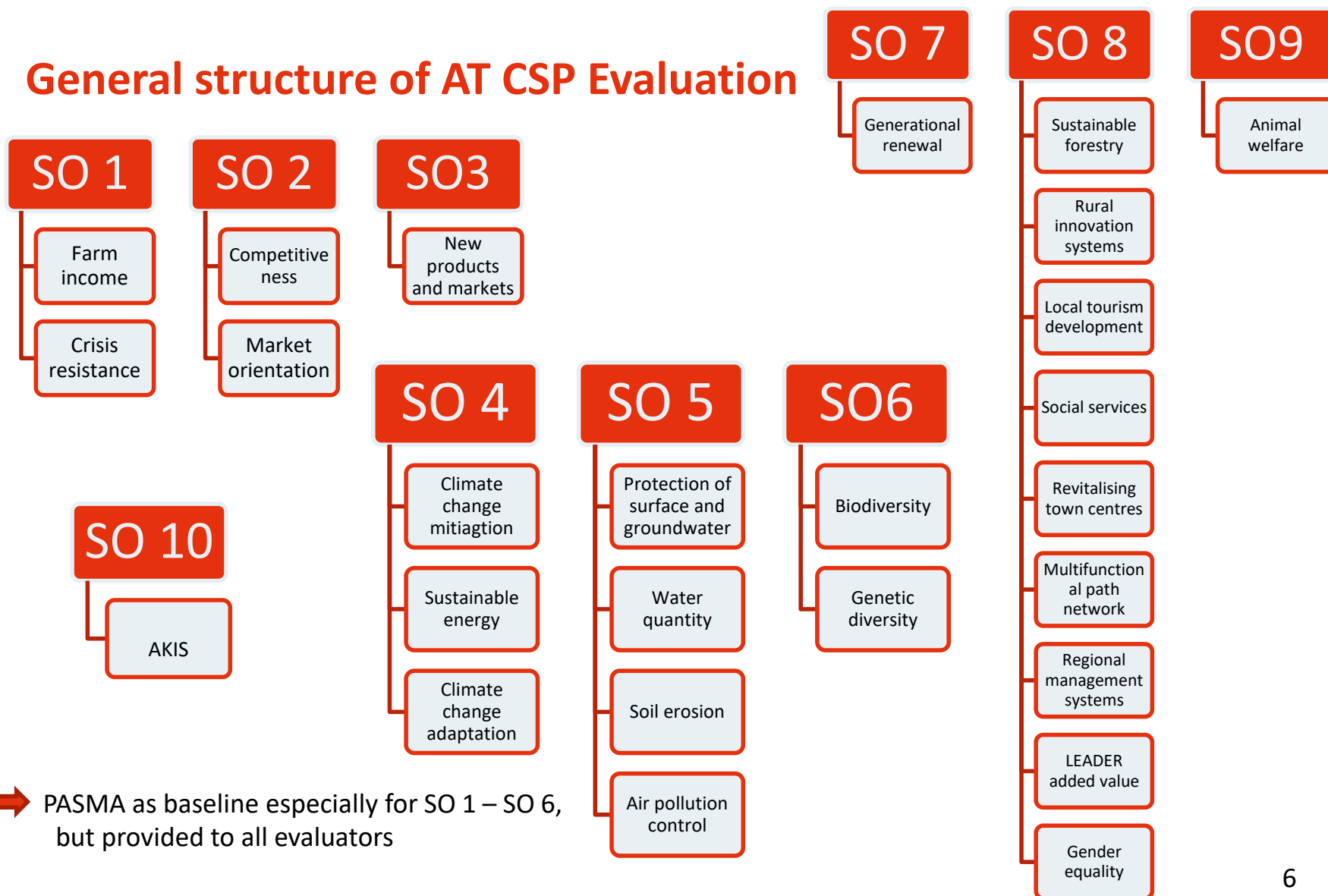
Advanced modelling of GHG emissions from agriculture (net effects)

Used as **reference** regarding: economic output (focus area 2A), Agri-environmental programme (ÖPUL)

CAP Strategic Plan 23-27

- Calculations (including PASMA simulations) from RDP14-20: **crucial for SWOT**, national needs, overall development of AT CSP
- PASMA: part of evaluation plan: baseline for mid-term (during the implementation period) und ex-post evaluations: especially for objective A&B (**reference data for evaluators**)
- Net effects: PMEF Impact indicators I.2, I.3, I.4, I.5, I.10, I.14, I.15 and I.26
- Results used for **conceptualization of the next** CAP period
- Continuous adaptations of the model on mid-term and ex-post evaluation

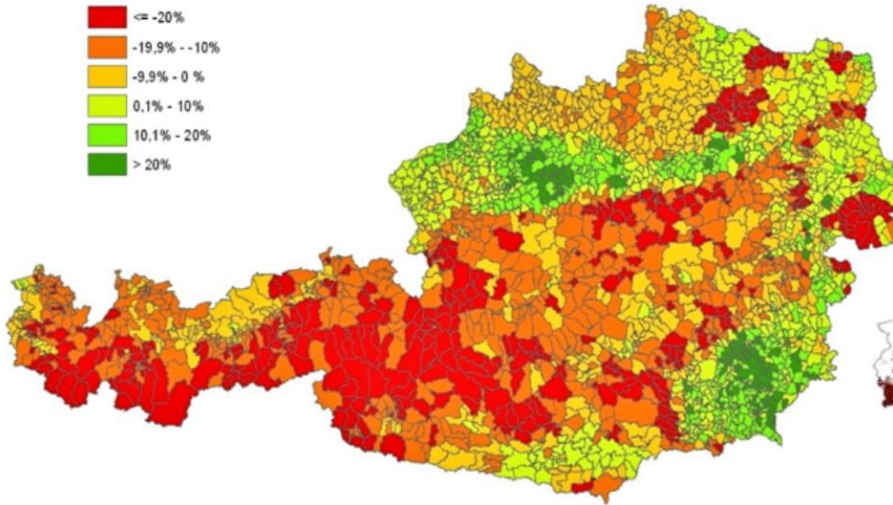
General structure of AT CSP Evaluation



PASMA Scenario: No CAP payments

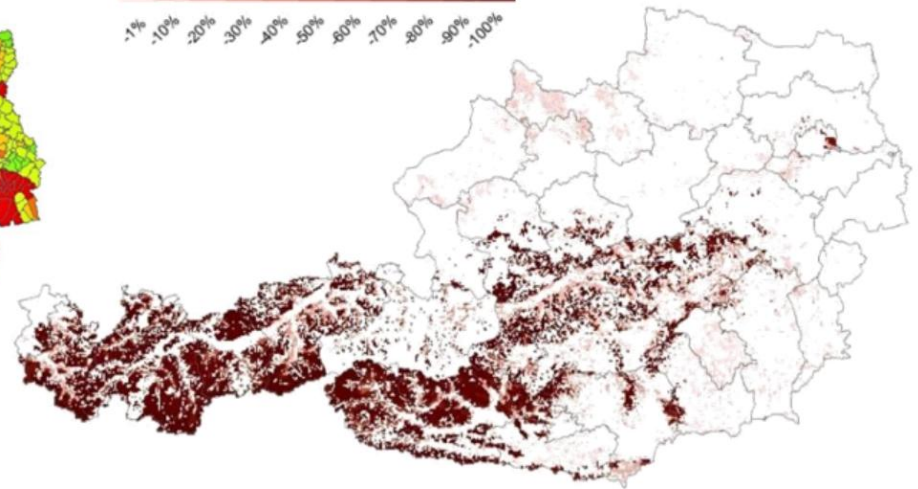
Strukturwandel Landwirtschaft

Legende



Verlust Grünland

Veränderung in %



0 25 50 100 150 200
Kilometer

26

Structure of agriculture in AT

- High proportion of small scale and family run farms (155.000. 11% less than 2010)
- Strong focus on organic farming (27%), high participation in agri-environmental programme
- Mountainous terrain, alpine pastures and mountain grazing (58% grassland)
- Focus on livestock and dairy
- Employment: 136.382 persons in agricultural employment (full-time equivalent), 67% of farms managed by men



*CAP Net effects on the agricultural structure calculated through PASMA->
e.g. employment*

Other frequently applied model

- **BERIO-ASCANIO model** (Austrian Institute of Economic Research): a macro economic regional economics model: input output analysis for a comprehensive assessment of economic effects- interactions with all sectors of the national economy
 - Applied since RDP07-13
 - *Sequential Integration*: Outputs from PASMA, such as changes in agricultural production and income, can serve as inputs for BERIO-ASCANIO to assess the ripple effects on the broader economy, including value creation and employment
 - *Combination of both models*: detailed evaluation of agricultural policies capturing both sector-specific and economy-wide impacts

Thank you for your attention!

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