

Economic and behavioural factors in collective agri-environmental schemes – a choice experiment approach



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Introduction

- Many plant and animal species depend on connected landscapes to thrive, and many ecosystem services emerge only at a landscape scale.¹
- **Collective agri-environmental schemes** are seen as a way forward by incentivizing **landscape scale management**.²
- However, success of collaboration often depends on the specific context and the complexity of the scheme.³

Keywords: Choice Experiment, collective agri-environmental schemes, biodiversity, landscape scale management, behavioral factors

Attributes	Levels	Nr. levels
Additional Payment	500, 1000, 1500 CHF	3
In Collective with	1, 3, 6, 10, 20	5
Monitoring	Expert in-person Data collection via digital tools	2
Discretion	Government, farmers	2

Table 1 Choice Experiment Attributes and Levels. Payment levels here given for Switzerland

Materials & Methods

- Survey in 4 Case Study Regions
- Norway, Germany, Switzerland, & Austria

Survey consisting of 3 parts

- Choice Experiment
- Socio-economic Factors (e.g., farm size)
- Behavioural Factors (e.g., environmental attitudes)

Formalities

- Ethical Clearance (ETHZ Ethics Commission, EK-2023-N-322)
- Pre-registration (AsPredicted, #161542)

N = 587 (NO = 152, DE = 159, CH = 123, AT = 153)

Analysis: Mixed logit model

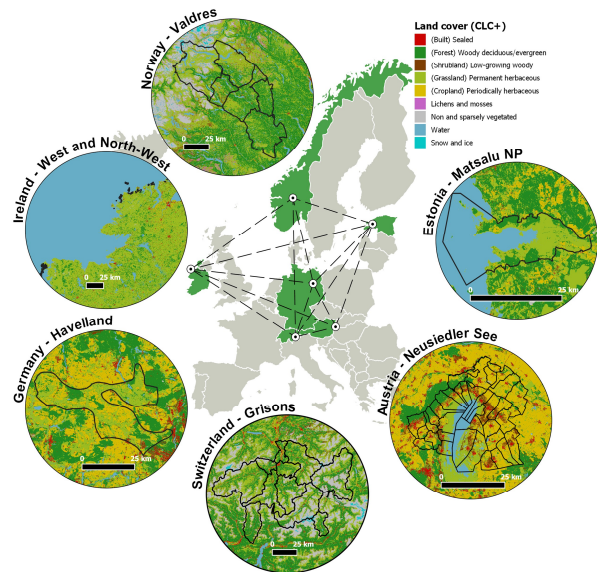
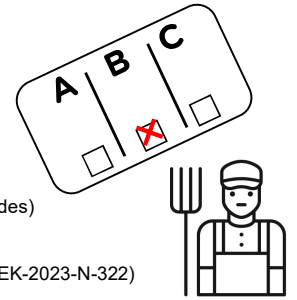
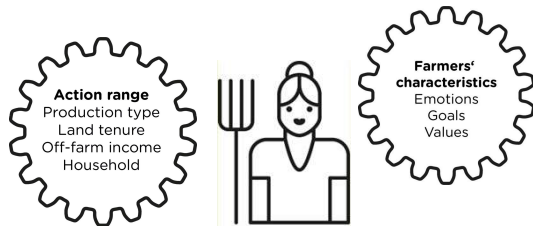


Figure 1 GreenNet Project Case Study Regions, anti-clockwise: Valdres Norway, West and North-West Ireland, Havelland Germany, Grisons Switzerland, Neusiedler See Austria, and Matsalu NP Estonia.

Background

But what are farmers preferences and what drives them? While there is research on determinants that drive the uptake of agri-environmental schemes in general⁴, and qualitative research on behavioral factors driving the uptake of cAES, there is little quantitative knowledge about the role of behavioral factors to collective schemes.⁵



Choice Experiment

Participants were asked 10 times to compare two agri-environmental schemes for biodiversity promotion (A and B) and to choose either one of the schemes or the current status quo.

Attributes	A	B	C
Additional Payment	1500 CHF	1000 CHF	No change
In Collective with	10	3	No change
Monitoring	Digital tools	In person	No change
Discretion	Farmer(s)	Government	No change
	<input type="checkbox"/> Choose A	<input type="checkbox"/> Choose B	<input type="checkbox"/> Choose C

Table 2 Exemplary Choice Card (CH example) with two options A and B, and a no-change option C

Preliminary Results

- Discretion with local government preferred
- Work in smaller groups preferred
- Being monitored in person preferred

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