

Fig. 1: list of flowers in the Jura

Practices and motivations of farmers who sign contracts to preserve grassland biodiversity

An innovative agri-environment measure (AEM), that carries a performance obligation, has been designed: farmers contractually agree to maintain a certain floristic diversity, but their practices are left free.

What could this new AEM change in farming systems?
What are farmers' practices and their motivations to sign the contract?

Introduction

Under the 'Flowering Meadows' AEM, farmers contractually agree to maintain a certain floristic diversity over a 5-year contract period.

The floristic diversity is assessed as follows: A diagonal transect is drawn across the field and each third of the transect line has to contain at least four different species from a pre-established list. (fig. 1)

Methods

21 farms surveyed in two Natural Regional Parks in the French Alps (Bauges) and Jura.

Semi-structured interviews:

- Practices on grasslands and reasons of the practices → management of the forage system.
- Analysis of the triptych knowledge - attitude - practices about grassland management and biodiversity.
- Reasons for signing the AEM contract.



Results

Farmers' Knowledge and practices

• A low level of Nitrogen input is considered as essential: Practices are relatively extensive on grasslands with AEM (fig.2).

• Long-time influence of the practices (~20yrs.) and great uncertainty on the result (influence of climate, pests): Fields committed have stable practices and already rich flora.

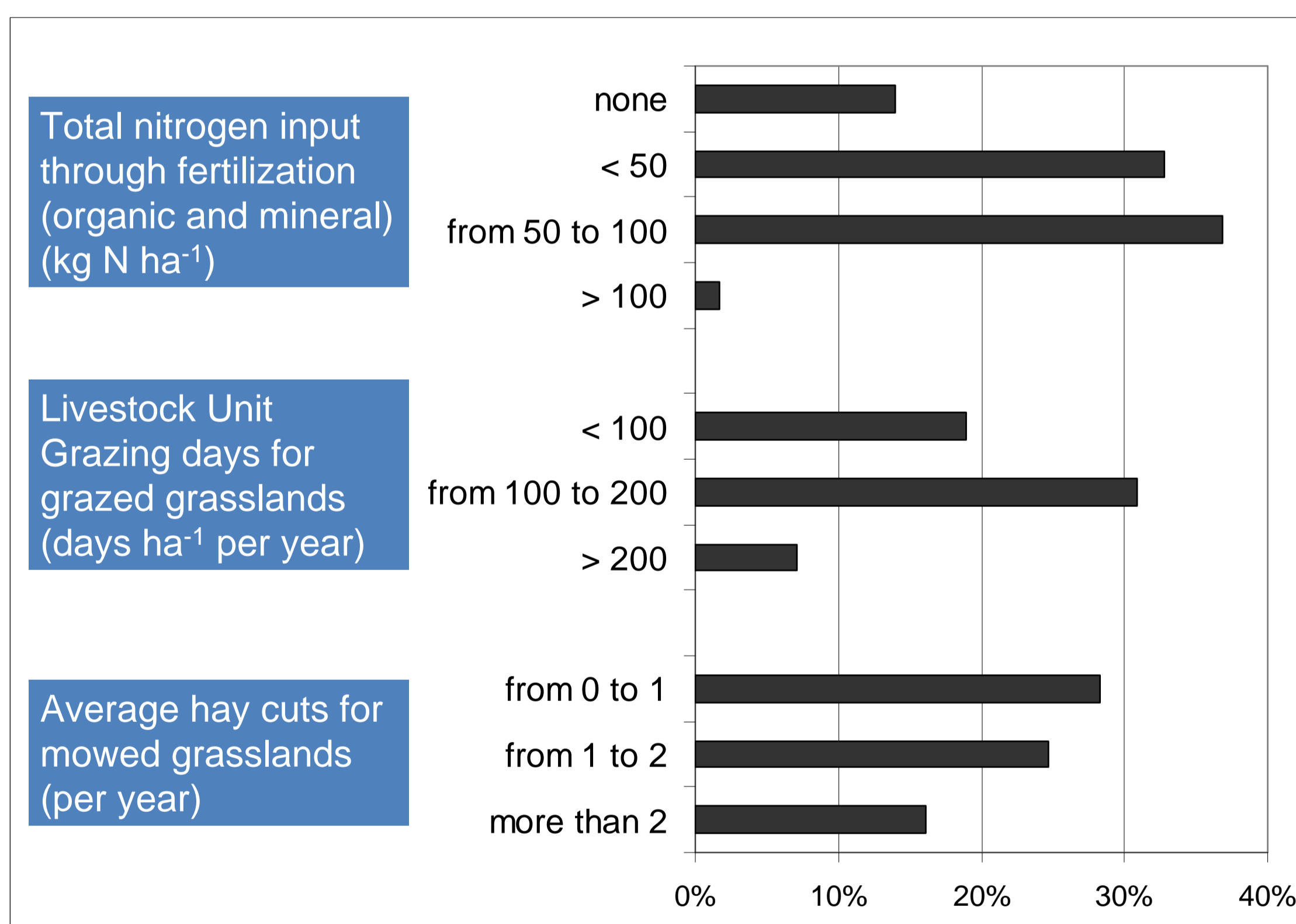


Fig. 2: Percentage of the area of permanent grassland under AEM-scheme, for different practices (sum of the areas of surveyed farms)

Farmers' justifications for signing the AEM

4 types of justifications identified (fig. 3):

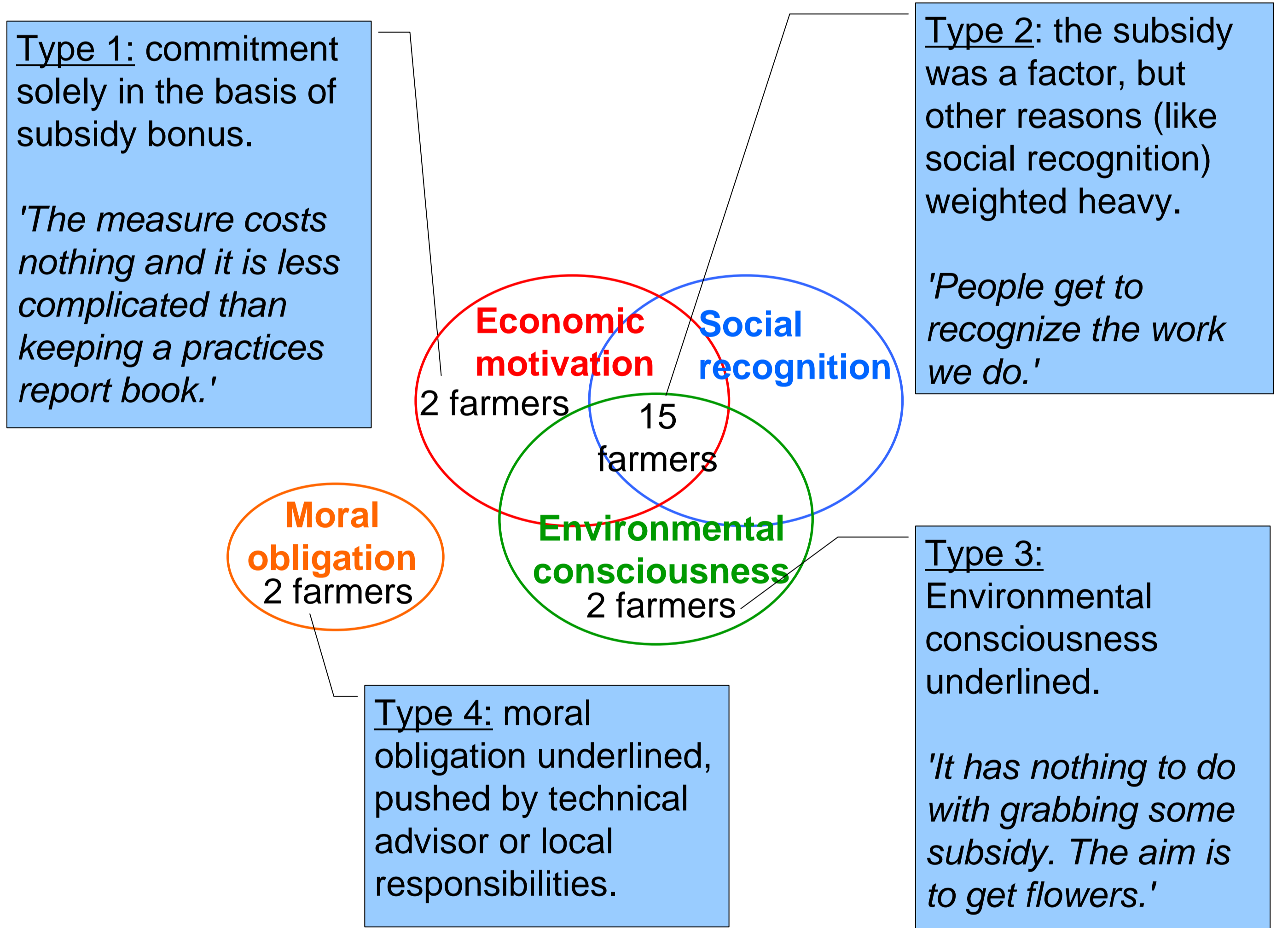


Fig. 3: farmers' justifications for signing the AEM

Logic in the choice of fields

- Types 1 and 2: arbitration between subsidy and risk
- Types 3 and 4: risk and time loss avoidance

Conclusions

This AEM acts more as a support to current non-intensive farm practices than any real incentive to change practices. However, it creates the conditions for maintaining relatively extensive grasslands offering a degree of biodiversity.

When building AEMs with a performance obligation, it seems essential to consider the farmers' behaviour responses to risk and uncertainty.

Farmers' experience is that flowering meadows are more flexible to manage (e.g. 'grass that stay green for longer'); some are assigned specific functions within the forage system (e.g. 'last hay cut').

Prospects: Renewal of the way to evaluate the performance of grasslands and how to provide technical advice.