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Rethinking biodiversity governance in European agricultural landscapes: Acceptability of alternative governance scenarios

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ABSTRACT

Biodiversity conservation in agricultural landscapes continues to be a key challenge in the European Union (EU). However, to date the Common Agricultural Policy (CAP), which is central for addressing this issue, has proven ineffective in improving biodiversity outcomes. In contrast to solutions that focus on individual policies or measures, we take a holistic approach to explore changes in the broader governance system for biodiversity conservation. For this purpose, we draw on a set of four theoretical, ideal-typical scenarios which represent alternative governance approaches and used them to stimulate discussion about the acceptability of contrasting governance approaches among a broad range of actors in three case study areas in Germany and Sweden. Our results highlight that acceptability of alternative governance approaches is shaped by a large variety of factors. Additionally, despite differences between the views and interests of different stakeholder groups, our findings show universal support for governance approaches that fundamentally differ from the status quo approaches. Thus, evaluating and addressing acceptability of alternative governance approaches needs to consider the preferences of many different stakeholders and requires a more holistic perspective. We therefore argue that designing a potentially widely acceptable alternative governance solution for biodiversity conservation in agricultural landscapes requires a blend of different governance approaches. We outline principles that can guide the design of such a blended governance approach and discuss key challenges arising from the suggested changes for both practitioners and future research.

1. Introduction

Biodiversity conservation in agricultural landscapes continues to be a key challenge in the European Union (EU). The EU's primary policy framework for tackling biodiversity issues on farmland is the Common Agricultural Policy (CAP). The objectives of the CAP originally focused on achieving efficiency in the agricultural sector, stabilizing prices, providing a reliable and affordable supply of food, and ensuring an equitable distribution of income to farmers (Gray, 2000). These objectives have been broadened and now also comprise environmental aspects, including natural resources and biodiversity conservation (European Commission, 2014). However, the effectiveness of agri-environment schemes (AES), the CAP's key policy instrument for biodiversity conservation, is questionable (see e.g. Batáry et al., 2015). To exacerbate this, the 2014 CAP reform has fallen short on improving biodiversity protection due to its weak requirements and many exceptions (Pe'er et al., 2014) and first results on the biodiversity benefits of ecological focus areas indicate a lower uptake of options that are considered to be more beneficial for biodiversity (Pe'er et al., 2016). In addition to the CAP's shortcomings in terms of policy design, farmers' voluntary participation in AES is typically higher in less intensively farmed areas (Rundlöf and Smith, 2006; Zimmermann and Britz, 2016), which are less prone to biodiversity decline. To date, the CAP framework and its measures thus have not achieved the EU's goal of reversing the loss of biodiversity (European Commission, 2011).

By now, actions to counteract biodiversity loss have been of piecemeal character and therefore of limited effectiveness. These attempts have focused predominantly on how individual policy sectors or existing policy instruments can be improved. For example, payment levels of AES have been changed, and expanding results-based payment approaches instead of the current action-oriented payments are being tested and proposed for improving the CAP's biodiversity benefits (Herzon et al. 2018). In order to extend the scope of discussions beyond the level of individual agri-environment schemes, we take a holistic approach and focus on alternative governance approaches for biodiversity conservation. Single elements that could constitute such alternative governance approaches have already been discussed in the literature. For example, landscape-scale management is increasingly

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advocated in the context of biodiversity conservation and the provision of ecosystem services (Tscharntke et al., 2005), providing an opportunity to overcome the current mismatch between the scales of ecological processes and the scales at which management actions are taken (e.g. Pelosi et al., 2010). Furthermore, collaborative approaches in agri-environmental management provide opportunities to create beneficial environmental impacts at the landscape scale (Prager, 2015; Westerink et al. 2017).

One key challenge for alternative governance approaches is their implementability, which requires the acceptance and the support of affected actors (Macnaghten and Jacobs, 1997). Thus, the overarching goal of this paper is to explore the acceptability of alternative governance approaches for biodiversity conservation in agricultural landscapes. To gain an understanding of the factors shaping the acceptability of alternative governance approaches of environmental and biodiversity conservation, we consider literature on environmental governance, institutional change as well as more specific research on farmers' acceptability of AES. Additionally, we draw on a set of four theoretical, ideal-typical governance scenarios which represent alternative governance approaches for biodiversity conservation in agricultural landscapes. They are conceptually situated at the extreme ends of two governance dimensions: (i) centralized, top-down vs. decentralized, bottom-up decision-making, and – in order to take into account the cross-boundary nature of biodiversity loss – (ii) decision-making based on administrative boundaries vs. decision-making based on ecological boundaries (cf. Leventon et al., 2018). These scenarios do not per se present better or worse ways of managing biodiversity. Instead, we used these exploratory scenarios (following Börjeson et al., 2006) to stimulate discussion about the acceptability of contrasting governance approaches among a broad range of actors in three case study areas in Germany and Sweden.

To achieve this overarching goal, this paper pursues two objectives. First, we aim to understand how stakeholders evaluate the different alternative governance approaches (objective 1), that is, which governance scenario(s) stakeholders prefer and in which way acceptability differs among stakeholders. Second, we explore factors shaping acceptability of these different alternative governance approaches to explain variation in scenario acceptability (objective 2). To this end, we assess the influence of acceptability factors suggested in the literature on environmental governance, farmer acceptability of AES, and institutional change. Additionally, we assess rationales for accepting or rejecting these scenarios expressed by the stakeholders themselves. The paper continues by outlining four governance scenarios and subsequently describes the theoretical basis as well as the methodology for evaluating their acceptability before presenting and discussing the results.

2. Four theoretical governance scenarios for biodiversity conservation in agricultural landscapes

Scenarios offer a way to visualize different plausible alternatives, assess their implications, and explore their acceptability in a risk-free space, which is unfettered by the restraints of usual policy-making (Volkery and Ribeiro, 2009). We base our assessment of alternative governance approaches for biodiversity conservation in agricultural landscapes on a set of four exploratory governance scenarios (sensu Börjeson et al., 2006) that represent different governance approaches (Table 1). These scenarios differ in two gradients that reflect key challenges and trends in environmental management, i.e. the scenarios represent combinations of the following characteristics:

- top-down decision-making, where power rests centrally with governmental actors vs. bottom-up decision-making, where power is decentralised to the local level and distributed among a broad range of actors;
- multi-level governance (MLG) based on territorial (MLG type I) vs. functional (MLG type II) system boundaries (Frey and Eichenberger, 1996; Hooghe and Marks, 2003).

The implications of the different forms of these characteristics for the effectiveness of environmental governance have been widely debated (e.g. Hooghe and Marks, 2003; Newig and Fritsch, 2009; Ekroos et al., 2017). For all of these characteristics both arguments supporting their usefulness and arguments challenging their positive effects for effective environmental governance have been raised. For example, task-specific governance units as in MLG type II are expected to perform better in terms of integrating environmental spillovers, but at the same time raise issues of accountability and legitimacy, given a multitude of overlapping, task-specific jurisdictions (Newig et al., 2016). Thus, no combination of these extremes is per se more or less appropriate for the governance of biodiversity management in agricultural landscapes than the current governance system. However, considering the effects of different combinations of these characteristics can be a way to explore the potential for improvement in the governance of biodiversity management.

Departing from the status quo, we consider differences in specific features that result from the general characteristics of the four scenarios, including changes in the roles and responsibilities of different actors and governance levels as well as the mode of actor collaboration. The latter, for example, ranges from the absence of actor collaboration (scenario 1); through cross-border collaboration of only governmental bodies (scenario 3) and broad stakeholder collaboration within territorial borders, covering only part of the relevant issues (scenario 2); to broad stakeholder collaboration across territorial borders and for a comprehensive set of biodiversity issues (scenario 4). For more details on the conceptual basis of the scenarios see (Leventon et al., 2018). We consider that none of these four scenarios is inherently superior to the current governance system. Rather, we see them as theoretically plausible extremes that may differ in their strengths, weaknesses and biodiversity outcomes.

3. Conceptual framework on stakeholder acceptability

Our conceptual framework on stakeholder acceptability of different governance scenarios builds on literature on environmental governance, institutional change, and research on farmer acceptability of AES. We selected these literature strands because they contribute elements which are crucial in the context of changes to the governance system in relation to biodiversity conservation in agricultural landscapes. As we detail below, one important aspect in environmental governance literature is the question of what determines how acceptable different approaches of environmental policy are to stakeholders. Institutional change literature scrutinizes the resistance of institutions towards change as well as ways to overcome this resistance. Research on farmer acceptability of AES acknowledges the crucial role of farmers in implementing policies on the ground, and explores factors that explain why farmers voluntarily participate in AES.

Literature on environmental governance sees the acceptance of environmental policies by society as an important pre-condition for these policies to be legitimate and effective. A variety of factors have been identified as shaping acceptance of environmental policies (e.g. Rhodes et al., 2017). This literature stresses that environmental justice is especially important and therefore highlights *procedural* and *distributive fairness* for increasing stakeholder acceptance (e.g. Gross, 2007; Vainio, 2011; Visschers and Siegrist, 2012; Hall et al., 2013). *Procedural fairness* refers to fairness in the processes in which decisions are made. To be considered fair, a decision-making process needs to offer the opportunity to participate and to have a voice. Furthermore, the responsible authorities need to be neutral, stakeholders need to trust the motives of these authorities, and they need to be treated in a respectful way during the process (Tyler, 2000). Fair decision-making processes are conducive to greater acceptance and support of policies because