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## Collaborative governance arrangements to deliver spatially coordinated agri-environmental management

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### ABSTRACT

Several studies show that agri-environment schemes (AES) are likely to be more effective if they are designed at the landscape scale. However, this requires spatial coordination of environmental management across multiple farm holdings and collaboration among governmental and other actors, including, possibly, groups of farmers. In this study we analyse alternative approaches to spatial coordination and collaboration. Through case studies from five EU member states in North West Europe we analysed collaborative governance arrangements, from the perspective of the distribution of governance tasks among collaborating actors and changes to these over time. Of these governance tasks, spatial coordination had our particular interest. The collaborative governance arrangements were shaped in various ways. In four out of five case studies a group of farmers had become involved in the performance of more governance tasks over time. In all cases a professional(ized) organisation (governmental organisation or a group of farmers) was responsible for spatial coordination, possibly due to the complexities inherent to a landscape approach. In relation to the change of schemes over time, we argue that adaptive collaborative governance, incorporating learning, monitoring and evaluation in the governance arrangements, is key to effective agri- environmental management.

#### 1. Introduction

Agri-environment schemes (AES, recently renamed AECS to include climate measures) became a mandatory element in all EU member states' Rural Development Plans in the Common Agriculture Policy (CAP) in 1994. AES are a key mechanism for supporting a wide range of environmental services from farmland (including biodiversity and landscape conservation). These schemes have evolved over the years as a result of changing public awareness and policy priorities, and the experience gained from their implementation. However, although AES payments involve €2.5 billion of EU funds per year, biodiversity in many rural areas is still declining rapidly (Berendse et al., 2004; Burns et al., 2016; EEA, 2015; Flohre et al., 2011). Although research has identified some positive environmental impacts arising from AES, many studies agree there is need for further improvements (Batáry et al., 2015; de Snoo et al., 2013; Jongeneel and Polman, 2014; Kleijn et al.,

2004; Kleijn et al., 2011; Kleijn and Sutherland, 2003). A key insight is the need to adopt a landscape scale approach, one that matches agrienvironmental management to the spatial scale of priority habitats, water systems and landscape features, such as stone walls and hedges (Dwyer, 2014; Franks, 2011; Kleijn et al., 2011; Merckx et al., 2009; Prager et al., 2012; Westerink et al., 2015).

However, a landscape scale approach requires governance arrangements that are able to deliver cross-holding spatial coordination of environmental management (Dutton et al., 2008; Schouten et al., 2013). This need has been acknowledged in the most recent reform of the CAP. AES compensation payments are now allowed to be paid to "groups of farmers, or groups of farmers and other land-managers" (Regulation (EU) No 1305/2013, article 28, sub-clause 2). Thus Article 28 opens up possibilities for the development of innovative collaborative governance arrangements for the delivery of agri-environmental services.

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Governance is defined as "the structures and processes by which people in societies make decisions and share power, creating the conditions for ordered rule and collective action, or institutions of social coordination" (Schultz et al., 2015, p. 7369). Collaborative governance can be understood as "the processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished" (Emerson et al., 2012, p. 2). Governance arrangements for the delivery of agri-environmental management may take various forms, as actor networks, agri-environmental policy and institutional frameworks are different between countries and regions (Bamière et al., 2013; Dupraz et al., 2009; Hodge, 2007; Westerink et al., 2015). This article analyses five case studies of collaborative governance arrangements drawn from different EU member states (France, Belgium, England, Germany and the Netherlands) to illustrate alternative approaches to delivering spatially coordinated agri-environmental management across farm holdings.

While CAP legislation is a major, it is not the only driving force behind the development of AES in the European Union. Governance, institutional arrangements for coordination and collaboration, and design of schemes are intricately related (Emery and Franks, 2012; Falconer, 2000; Franks, 2011; Mettepenningen et al., 2013; Westerink et al., 2015). One aim of this article is to contribute to a better understanding of these relationships. Differences in environmental priorities and governance cultures have influenced the way individual schemes have developed (their path dependency), which means that 'cutting and pasting' entire AES from one member state or region to another is unlikely to be successful. However, this review of the development path of five examples of collaborative AES governance aims to generate transferable lessons, taken from real world examples and experiences, as innovations often spring from tailoring ideas found elsewhere to one's own circumstances and needs (Barzelay, 2007).

This comparative study is timely. Not only because of the need for AES to deliver environmental improvements, or because CAP-based AES can now offer higher and more directed payment incentives to farmers to manage their environment as members of farmer groups, but also because analyses of the actual organisation of spatially coordinated and/or collaborative AES are not readily available (see OECD, 2013 for a recent overview). Scientific articles analysing collaborative governance arrangements for AES are scarce: despite many articles advocating spatial coordination and collaboration among farmers, few analyse actual case studies (examples are Steingröver et al., 2010; Westerink et al., 2017).

This article analyses the variety of collaborative governance arrangements used to deliver spatially coordinated agri-environmental management in different EU member states. The next section presents our conceptual framework; this is followed by the methods used. The case studies are described with reference to the annex with supplementary material. The discussion analyses the change in the distribution of the AES-related governance tasks between actors over the duration of the case study. It also analyses how the governance task of spatial coordination is implemented in the various settings and considers the extent to which current governance arrangements have been informed by previous experiences.

#### 2. Conceptual framework

#### 2.1. Landscape approach and spatial coordination

From the perspective of ecosystem functioning and services, there are good reasons to strive for spatial coordination of agri-environmental management across farm holdings within a landscape. Various ecosystem services targeted by agri-environmental policies, such as water quality and storage, wildlife conservation and the protection of cultural landscape structures, are more connected to the landscape level than to the single farm level (Gabriel et al., 2010; Herzon and Helenius, 2008; Merckx et al., 2009; Opdam et al., 2001). Single farms or plots are often simply too small to secure effective delivery of such services (McKenzie et al., 2013). For example, individual elements within landscapes, such as buffer sites, habitat stepping stones and ecological corridors are better able to contribute to strengthening the resilience of ecological networks when their location is related to existing environmental features (Franks and Emery, 2013; Geertsema et al., 2002; Opdam et al., 2006; Opdam et al., 2003; Schouten et al., 2013). Recent studies show that strengthening this type of intricate green-blue infrastructure improves landscape permeability, which favours species mobility: this thus facilitates a critical adaptation strategy to offset the impacts of climate change (Fahrig, 2003; Franks and Emery, 2013; Van Teeffelen et al., 2015).

However, the enhancement of ecosystem services at the landscape level requires the combined efforts of several land holders in ways which strengthen and complement each other. This requires careful planning of what to do and when and where to do it, and an understanding of the quality, intensity and density of on-farm measures required to achieve the desired level of ecosystem service delivery (Dutton et al., 2008). This spatial coordination can be achieved by a number of mechanisms (see for instance Boulton et al., 2013). It can be done by means of a landscape design by a governmental or an external agency, which allocates management options to specific sites, for which the individual farmers are personally invited to participate (Boulton et al., 2013; Dutton et al., 2008). Guidance, advice and facilitation can be provided by government agencies, independent consultants, professionals employed by a farmer group or conservation NGOs (Prager, 2015b). In addition, the actual design of AES can create landscape scale impacts by default, reducing or eliminating the need for either farmer-farmer collaboration or third party coordination. For example, increasing the inter-connectedness of habitats across the landscape can be steered by limiting the number of management options available for specific landscapes. Because a critical mass of participants is required to ensure sufficient coverage in targeted landscapes, schemes could be designed so that payments are only awarded above a pre-determined participation rate (Appleton, 2002). In addition, a scheme could include specific incentive mechanisms with or without agglomeration bonuses depending on the suitable spatial distribution of farmers' efforts (Bamière et al., 2013; Kuhfuss et al., 2016). An alternative to spatial coordination being imposed 'from above' or organised 'from outside' is for the spatial coordination to be organised by the farmers themselves (Mills et al., 2011; Westerink et al., 2015). With a view to enhancing landscape approaches and collaboration, the recent change in the CAP regulations now allows groups of farmers to be the end-beneficiaries of agri-environmental payments (see consideration 29 opening the Regulation (EU) 1305/2013).

#### 2.2. Collaborative governance

The search to raise the effectiveness of ecosystem service delivery is an important explanation for the scholarly interest in collaboration. For the purpose of this article we distinguish collaborative management and collaborative governance. Collaborative management refers to the collaboration among land managers who are involved in actually carrying out management activities on-the-ground, while collaborative governance refers to the involvement of governmental and non-governmental actors in the processes and structures of decision making and management at the scheme level.

Previous studies have focussed on collaborative management among land managers in agri-environmental management (Boulton et al., 2013; Jongeneel and Polman, 2014; OECD, 2013; Prager, 2015b). Collaboration offers farmers advantages over and above the increased effectiveness of their agri-environmental efforts. Rural communities often consider their landscape as part of their rural identity, and Download English Version:

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