



Investigating the influence of the institutional organisation of agri-environmental schemes on scheme adoption

Evy Mettepenningen^{a,*}, Valerie Vandermeulen^a, Katrien Delaet^a, Guido Van Huylenbroeck^a, Eric J. Wailes^{b,1}

^a Department of Agricultural Economics, Ghent University, Coupure Links 653, 9000 Ghent, Belgium

^b Department of Agricultural Economics and Agribusiness, University of Arkansas, 217 Agriculture Building, Fayetteville, AR 72701, USA

ARTICLE INFO

Article history:

Received 31 May 2012

Received in revised form

30 November 2012

Accepted 7 December 2012

Keywords:

Agri-environmental schemes

Flanders

Arkansas

Institutional organisation

Adoption

ABSTRACT

In this paper, the objective is to assess the influence of the institutional organisation of AESs on farmers' participation in the schemes. The literature reveals that the institutional organisation of AESs can influence participation in the schemes and that this participation rate is an important indicator of the schemes' eventual environmental effectiveness. The paper describes several alternative ways to design and implement AESs, and two study regions were chosen in which several of these alternatives have been applied in practice: the region of Flanders, in Belgium; and the state of Arkansas, in the US. On the basis of the results obtained one could argue that farmers are generally more in favour of a flexible approach towards AESs, in which they have the freedom to decide on contract terms and the related payment. However, although this could have a positive effect on the environmental effectiveness of the schemes, it could also significantly increase the transaction costs.

© 2012 Elsevier Ltd. All rights reserved.

Introduction

Since the Second World War agriculture in Europe has been characterised by increasing specialisation and intensification, which has led to negative externalities for the environment. The European Union reacted to this situation by introducing agri-environmental schemes (AESs) under Reg. (EC) 2078/92, which later became the backbone of the second pillar of the Common Agricultural Policy (CAP). Participation in these schemes is voluntary and farmers receive a compensation payment for delivering environmental measures which exceed the requirements set out in the cross-compliance.² Positive effects on the sustainability of farm management have already been observed for some AESs, but despite this, the effectiveness of AESs is often contested (Kleijn et al., 2004; Kleijn and Sutherland, 2003; Knop et al., 2006; Primdahl

et al., 2003). One factor influencing this environmental effectiveness is the extent of participation by farmers in the schemes (Finn et al., 2007; Kleijn and Sutherland, 2003). In fact, for the Belgian region of Flanders, Finn et al. (2007) found that participation by farmers was the criterion that most limited the environmental performance of AESs. In 2010, 9.9% of the Flemish agricultural area was under AESs (Dumez and Van Zeebroeck, 2011). In the European Union (EU) in general (EU-15), 24% of the utilised agricultural area was covered by agri-environmental contracts (most recent figures from 2002) (European Environment Agency, 2006). The uptake levels, however, differ substantially between the member states: with participation of above 75% in, for example, Finland (which has a quasi cross-compliance arrangement, Nitsch et al., 2005) and less than 10% in the Netherlands and Spain.

Thus, one of the keys to improving the environmental effectiveness of AESs is to achieve higher participation by farmers. The question is then: how can AESs attract more participants? To answer this question, it is necessary to look in more depth at the farmers' decision-making process in relation to the adoption of AESs. Falconer (2000) states that in the context of agri-environmental decision-making, at least two aspects of farmers' attitudes should be considered: attitudes towards the environment and willingness to undertake conservation management (related to business or personal objectives) and secondly, attitudes/perceptions toward the agri-environmental programs and their implementation. However, agri-environmental programs are not so homogeneous – not even within the EU where the European

* Corresponding author. Tel.: +32 9 264 59 43; fax: +32 9 264 62 46.

E-mail addresses: Evy.Mettepenningen@UGent.be (E. Mettepenningen), Valerie.Vandermeulen@UGent.be (V. Vandermeulen), Katrien.Delaet@gmail.com (K. Delaet), Guido.VanHuylenbroeck@UGent.be (G. Van Huylenbroeck), ewailes@uark.edu (E.J. Wailes).

¹ Tel.: +1 479 575 2278; fax: +1 479 575 5306.

² The term 'cross-compliance' refers to some prior conditions European farmers have to fulfill regarding nature and the environment, public health, the health of plants and animals and animal welfare. Fulfilling these requirements is a prerequisite for obtaining the single farm payment from the first pillar of the CAP, and since 2007 also for obtaining subsidies from the second pillar (including the AESs).

Commission provides some guidelines – as member states still decide for themselves how to organise their AESs. This results in a whole spectrum of different systems: with cooperative approaches in the Netherlands, whole-farm systems in the UK and Ireland, and – in line with the new opportunities offered by the European Council Reg. (EC) No. 1698/2005 (European Commission, 2005) – experiments with competitive bidding and the organisation of AESs through the LEADER approach.

In this paper, the objective is to assess the influence of the institutional organisation of AESs on farmers' participation in the schemes. The research was conducted in two study regions: the region of Flanders, in Belgium; and the state of Arkansas, in the United States (US). We chose to conduct part of the research in the US, because of its differences from the EU in terms of the institutional organisation of agri-environmental policies. Compared to the situation in the EU, compensation for agri-environmental policies in the US tends to be more result driven, the schemes show a higher level of flexibility, and participation in the schemes is often determined by competitive bidding (for an overview of the difference in agri-environmental policies between the EU and the US, we refer to Baylis et al., 2008). Participation in agri-environmental policies in the US is also lower than in the EU, with only 4.1% of the total agricultural area under contract in the US, and 3.2% in the state of Arkansas³ (U.S. Department of Agriculture, 2009). We believe that this different benchmark in both regions, and the corresponding knowledge levels of farmers concerning the different alternatives for the institutional organisation of AESs, facilitate the identification of improvements in the AES system – primarily for the EU, but also for the US and other countries, which could increase farmers' participation and improve the schemes' environmental effectiveness.

This introduction will be followed by a short literature review on alternatives for the institutional organisation of AESs. After this, the conceptual framework will be discussed for the analysis of the influence of the institutional organisation of AESs, on farmers' participation. Next, the methodology and the survey sample of farmers will be described, followed by a results section. Finally, there will be a discussion of the results and the formulation of policy recommendations.

Institutional alternatives for organising AESs

There are several alternatives for organising AESs. In this section we will only focus on AESs that involve contracts between the government and farmers, for which the latter can receive payments. Recent literature has examined the possibilities for financing agri-environmental practices without government support, e.g. through landscape auctions or landscape funds financed purely by local citizens and companies (Cappon and Leinfelder, 2008; Wunder et al., 2008), but these alternatives are beyond the scope of this paper. In exploring the different possibilities for the institutional organisation of AESs, we will focus only on Williamson's third level of social analysis, or the level of governance, which focuses mainly on contract design (Williamson, 2000). Fig. 1 schematically represents the different possibilities for the institutional organisation of AESs that we intend to investigate in this paper. Although this list of possibilities is probably not exhaustive, it does contain the main alternatives known in the field.

First of all, there are differences in the assistance provided to farmers when implementing AESs. One aspect of this assistance towards implementation is the level of advice or extension service

the farmer receives for performing environmental management tasks. According to Morris (2004), a lack of assistance with environmental management tasks can lead to frustration, with farmers ultimately quitting the schemes. Farmers, whose knowledge of environmental management is generally limited (Wilson and Hart, 2001), seem to be quite dependent on environmental experts, or extension agents, to instruct them on how to effectively implement the schemes (Morris, 2004). The quality of the advice they receive, however, is not always optimal. According to research by Juntti and Potter (2002, p. 228) in England and Finland, advisers often communicate AESs as being "only incidentally 'environmental'" in order to cultivate the farmers' trust. As a result AESs are seen mostly as a form of income support, with the environmental benefits only perceived as secondary, and this threatens the effectiveness of the schemes. Another problem can be that advisers insist too much on a standardised delivery for the schemes, as a result of pressure to increase their environmental performance. This can limit farmers who would like to extend their environmental efforts beyond the scheme's fixed requirements and can inhibit shifts towards sustainable agriculture in the long term (Juntti and Potter, 2002). Another aspect of assistance at the implementation stage concerns whether farmers implement the schemes on their own or in a group with other farmers and/or other local actors. Currently, the most common practice, both in the EU and in the US, is the implementation of AESs by individual farmers. However, there is growing criticism of this approach as it leads to "individual, disconnected actions", whereas optimal environmental results are generally obtained when there is a coordination of actions at the landscape level (Prager et al., 2012, p. 245). This might also require cooperation with non-agricultural land owners or managers. Cooperation in environmental management can also be beneficial, as the costs for machinery (such as hedge trimmers or mechanical weeders) can be shared, knowledge can be more easily exchanged and the transaction costs for farmers can be reduced (Polman, 2002). The Netherlands has a long tradition of cooperation for environmental management, through the environmental cooperatives.

This brings us to the second category of alternatives, concerning the degree of participation by farmers and other actors in the design of AESs. Environmental cooperatives were founded in Friesland as a response by farmers to new and stricter environmental regulations. In exchange for exceptions to these regulations, Friesian farmers committed themselves to increase their efforts in nature and landscape management. Together with the government, they designed their own agri-environmental programme, which better fitted the local conditions (Slangen, 1994; Wiskerke et al., 2003). As this approach makes use of local knowledge, as a supplement to expert knowledge, it leads to mutual learning opportunities, more acceptable policies and hence greater environmental impacts (Bruckmeier and Tovey, 2008; Eggers et al., 2004; Reed, 2008). As such, these environmental cooperatives function as a kind of field laboratory for new policy instruments to increase the environmental sustainability of farming. Non-farmers can also be members of these environmental cooperatives, which have risen in number to over 100 since the foundation of the first cooperative in 1992 (Renting and van der Ploeg, 2001). Involving non-farmers can increase the environmental effectiveness of agri-environmental policies by enabling work on a landscape scale and, again, bringing additional knowledge to the process. It would also increase the chances of financial support for these cooperatives, which seems to be necessary, particularly during the start-up phase (Franks and McGloin, 2007). Another alternative in this category is the design of AESs on the local level through the CAP's LEADER approach, in the form of a project supporting the local development strategy or within a subgroup of the LEADER local action group, consisting of farmers and possibly other societal groups (Eggers et al., 2008).

³ These percentages represent the land enrolled in the Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs.

Download English Version:

<https://daneshyari.com/en/article/93126>

Download Persian Version:

<https://daneshyari.com/article/93126>

[Daneshyari.com](https://daneshyari.com)