



Farmer participation in agri-environmental schemes: Regionalisation and the role of bridging social capital



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ABSTRACT

European agri-environmental schemes are being criticised for reinforcing rather than negating an opposition between agricultural production and environmental production, and for assuming instead of securing a public willingness to pay for agri-environmental change. This paper explores if a regionalisation of agri-environmental governance may contribute to overcome these criticisms. The paper empirically explores three regionalised agri-environmental schemes from Flanders, Belgium, with the use of 40 qualitative interviews with farmers and other relevant stakeholders. Building on the Bourdieusian theory of capital and the conceptual distinction between bonding and bridging social capital, the paper analyses whether and why the regionalised arrangements incited farmers to integrate environmental production in their farm management to meet other regional stakeholders' demands for agri-environmental change. In doing so, the paper particularly focuses on the role of bridging social capital in fostering farmer participation in agri-environmental governance, which is a topic that—despite a growing scholarly recognition of the importance of social capital in mediating farmers' environmental behaviour—has to date received scant conceptual and empirical attention. The paper reveals that farmers principally participated in the regionalised agri-environmental schemes to enhance the long-term viability of their agricultural businesses by building up more cooperative and appreciative, bridging social ties with other regional stakeholders. Notably, such participation is only likely to be substantive and lead to long-term, pro-environmental behaviour change of farmers, if farmers actually succeed in building up bridging social capital by receiving other regional stakeholders' appreciation for their agri-environmental work. The paper ends with discussing the implications of these findings for the future design and implementation of socially and ecologically robust agri-environmental schemes.

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1. Introduction

To incentivise farmers to conserve and enhance the environment, the EU has long relied on subsidising farmers' voluntary involvement in agri-environmental schemes (AES). AES (now agri-environment-climate schemes—[European Commission, 2013](#)) were first introduced into the EU Common Agricultural Policy (CAP) in the mid-1980s as an option for Member States, and have been a compulsory element of Member States' rural development plans since the 1992 McSharry reforms of the CAP ([European Commission, 1992](#)). On top of cross-compliance requirements (the

compulsory basic layer of environmental requirements that farmers must meet in order to receive CAP funding), AES are a crucial instrument through which the EU aims to meet societal demand for environmental services provided by agriculture—such as promoting soil and genetic diversity, reducing environmental degradation, limiting wildlife loss and preserving cultural landscapes. In the period 2007–2013, EU expenditure on AES amounted to 22% of the total EU expenditure for rural development ([Directorate General for Agriculture and Rural Development, 2016](#)); in 2013, 46.9 million hectares (more than 25% of the utilised agricultural area of the EU-27) were under at least one agri-environmental commitment ([Directorate General for Agriculture and Rural Development, 2015](#)).

AES involve temporary (five- to seven-year) contracts between Member State agencies and farmers that stipulate the environmental management activities that farmers should perform on

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specified parcels of land in order to be eligible for annual payments. This implementation of AES is legitimated on the basis of two core premises. First, due to productivist pressures, agricultural production and environmental production have come to oppose one another. And, second, the public desires agri-environmental change, and therefore should compensate farmers who are asked to take measures that limit their ability to optimise their agricultural production (Hodge, 2001; Lockie, 2006; Burton and Schwartz, 2013).

Despite a long-standing and widespread acceptance and application of the above rationale throughout Europe, the AES have become subject to fundamental criticisms. One line of criticism is rooted in the observation that the schemes assume rather than secure or stimulate the European public's willingness to pay for agri-environmental public goods (Hodge, 2001; Matzdorf and Lorenz, 2010). Furthermore, the schemes are being criticised for reinforcing instead of negating the opposition between agricultural production and environmental production. As the voluntary schemes are in direct competition with agricultural production and markets, AES tend to fail to incite farmers to integrate environmental interests in their agricultural business development (Hodge, 2001; Lockie, 2006; Siebert et al., 2006; Burton et al., 2008; Jack, 2015).

Refining the above criticisms, a growing body of social scientific scholarship has begun to scrutinise the focus on economic principles that has informed the design of the EU agri-environmental policy (Burton and Paragahawewa, 2011). By stimulating farmers to become involved in AES by means of compensating loss of income incurred from compliance to scheme requirements, the policy works from the assumption that farmers principally adopt an economic rationality when making decisions regarding the environment. Resultantly, the policy overlooks how farmers' embeddedness in social networks (and the social capital implicated in these), and prevailing cultural preferences for landscape appearances within these networks (that structure farmers' possibilities to obtain social status through their landscape management), also shape farmers' willingness to manage agri-environmental amenities (Burton et al., 2008; Burton and Paragahawewa, 2011; Saunders, 2015).

Political and scientific interest in overcoming the above criticisms has inspired a quest for innovative agri-environmental governance arrangements. One such innovation concerns a move away from top-down, vertically organised governance arrangements towards regionally organised arrangements (Böcher, 2008; Kneafsey, 2010; Prager, 2015), because "*when shifting agricultural objectives to a combination of environmental and production goals, the relevant management level is often no longer that of the farm, but rather a small territory, watershed, landscape unit, etc., for which farmers and other land users should agree on common rules and adjust their practices to these*" (Renting et al., 2008; p. 378).

In this paper we aim to explore whether and why a regionalisation of agri-environmental governance helps to address the above criticisms on AES by inciting farmers to adjust their farm management practices to meet public preferences for agri-environmental change. In doing so, we are particularly interested in the extent to which the regionalised arrangements incite, and enable and constrain farmers to build up bridging social capital with other regional stakeholders by integrating environmental production in their agricultural business development. Despite a growing scholarly recognition of the importance of social capital in mediating farmers' agri-environmental behaviour (e.g. Mathijs, 2003; Siebert et al., 2006; Burton and Paragahawewa, 2011; Saunders, 2015), the interplay between farmers' bridging social capital and their participation in agri-environmental governance has to date received scant conceptual and empirical attention, which is a lacuna that this paper aims to address.

In the following section, we introduce our conceptual framework that principally builds on the Bourdieusian theory of capital and the distinction between bonding and bridging forms of social capital. Subsequently, we discuss our methodology and introduce three case studies that we have undertaken, involving three regionalised AES in Flanders, Belgium. We then empirically explore farmers' and other regional stakeholders' involvements in these AES, and assess if and how bridging social capital was generative of and generated by farmers' willingness to manage agri-environmental amenities. We end by discussing the implications of our work for understanding farmer participation in AES, and for the future design and implementation of socially robust AES.

2. Conceptual framework: social capital and farmer participation in AES

A key assumption behind EU AES is that farmers are economic rational actors when making decisions concerning the environment and that, therefore, financial incentives work best to incite farmers to deliver environmental benefits to society (Burton et al., 2008; Hanley et al., 2012; Home et al., 2014). In their review of about 160 studies on factors that affect farmer participation in biodiversity policies, Siebert et al. (2006) found that many analyses corroborate that economic motivations play a key role—which is not surprising since farmers need to manage their farms in an economically viable way. Yet, Siebert et al. also found clear indications that "financial compensation and incentives function as a necessary, though clearly not sufficient, condition" to explain farmer support for agri-environmental measures (2006, p. 334). They concluded by pointing to a need for more conceptual and empirical attention for influencing social norms and expectations, which escape scientific attention when focussing principally on farmers' individual economic interests (see also Burton and Schwarz, 2013; Home et al., 2014).

Observations as made by Siebert et al. have informed studies into the role of social capital in governing farmers' willingness to participate in agri-environmental policies. Social capital can be defined as "the norms and networks that enable people to act collectively" (Woolcock and Narayan 2000, p. 226) and is embodied in the ability of actors to gain access to group resources (like information, cooperation) provided by being accepted in a group (Bourdieu, 1986; Tisenkopfs et al., 2008; Sutherland and Burton, 2011). Operationalising social capital principally in terms of the size and density of farmers' social networks and farmers' trust in governmental institutions, a number of researchers have shown that social capital fosters farmers' willingness to participate in AES—most notably because social capital facilitates awareness of AES and reduces transaction costs (Mathijs, 2003; Jones et al., 2009; Morrison et al., 2011). Notably, these studies provide an important corrective to the reductive focus on the role of economic capital in guiding farmer involvement in AES. Yet, the studies can be criticised for attending only to how social capital affects farmers' willingness to participate in agri-environmental policy, rather than also to how farmers' actual participation affects their social capital and how this in turn influences farmers' environmental engagements.

Bourdieu's (1986) theory of capital does provide an analytical framework that allows for analysing how farmers' social capital and participation in AES interrelate (Burton et al., 2008; Saunders, 2015). Bourdieu distinguished between three fundamental forms of capital: besides *economic* capital and *social* capital, also *cultural* capital (resources in the form of knowledge, skills, dispositions and the possession of culturally relevant objects—Burton and Paragahawewa, 2011). Central to Bourdieu's theory is that capital can be converted between the three forms via *symbolic* capital (status and reputation). Rural sociologists, including most

notably Burton and colleagues (Burton et al., 2008; Burton and Paragahawewa, 2011; Sutherland and Burton, 2011), have built on this theory to argue that the nature of cultural capital in agriculture, and its ability to generate social capital for farmers by underpinning their social status within farmers' communities, are key to understanding farmers' decisions towards the environment.

Following Bourdieu (1986), cultural capital can exist in three key states: it can be *institutionalised* such as in the value of educational qualifications and awards; it can be *objectified* in goods of high status value; and it can be *embodied* in durable mental and bodily dispositions and skills. Importantly, the value of particular forms of cultural capital is not universal but specific to what Bourdieu called *social fields*, in which actors have interactively developed, and come to embody similar categories of perception and appreciation (Bourdieu, 1998). Only when such similar dispositions exist, can the efforts that actors have put in obtaining and displaying their cultural credentials be recognised by others and rewarded with an enhanced social status and converted into social capital (Bourdieu, 1984; Burton et al., 2008; Sutherland, 2013; Riley, 2016).

Scholars have shown that within farmers' communities, farming landscapes represent a highly valued form of cultural capital because these landscapes act as a "display of the farmer's knowledge, values and work ethic" (Rogge et al., 2007; p. 55; Burton et al., 2008; Sutherland, 2013; Saunders, 2015) and, hence, an objectification of their embodied cultural capital. Farmland publicly exposes a farmer's (lack of) knowledge and skills, which in turn informs the farmer's social status amongst peers and the desirability of including the farmer in agricultural social networks. Burton (2012) and Sutherland (2013) reveal that owing to the historically high economic value of 'productivist' farming practices, farmers have come to culturally value landscape features that indicate high agricultural productivity, including 'tidy' landscapes that involve e.g. evenly spaced, uniformly growing and weed-free crops (see also Vanslebrouck et al., 2002; Schmitzberger et al., 2005; Ahnström et al., 2009; Saunders, 2015). Crucially, this cultural preference for symbols of agricultural productivity conflicts with alterations in farming practices that are required by AES, as these tend to result in landscapes that are less agriculturally productive and more complex and 'messy' (Burton et al., 2008). What is more, by prescribing the environmental management activities that farmers should undertake in order to receive a fixed-rate governmental remuneration, AES do not incite farmers to develop, display and recognise skilled cultural competences related to achieving environmental goals. Rather, farmers are likely to experience peer pressure to do nothing more than following the standard rule (Deuffic and Candau, 2006; Kaljonen, 2006) as otherwise they only risk losing cultural and social capital without gaining more economic capital (Burton and Paragahawewa, 2011).

This Bourdieusian analysis provides a rich and compelling insight into the socio-cultural dynamics that affect farmers' environmental behaviour. The analysis does, however, restrict itself to socio-cultural dynamics within farmers' communities (or, in Bourdieusian language, the social field of agriculture) and, as such, pays attention only to farmers' *bonding* social capital—i.e., to social ties based on similarity in identity and group belonging (Putnam, 2000; Putnam and Goss 2002; Sutherland and Burton, 2011). In doing so, the analysis overlooks dynamics related to *bridging* forms of social capital that involve social ties across the socio-cultural divisions of different social fields (Putnam, 2000; Woolcock and Narayan, 2000; Putnam and Goss 2002; Tisenkopfs et al., 2008) such as between farmers and e.g. country dwellers, consumers, nature conservationists and governmental agents. This is a potentially important omission since different studies found that farmers who participate in AES attach much importance to being appreciated for their agri-environmental efforts by non-farming members of society (e.g. Matzdorf and Lorenz, 2010; Mettepenningen et al., 2013; Home

et al., 2014)—which is a finding that fits in with the growing attention for multifunctional forms of farming that establish non-food based links between agriculture and society (Renting et al., 2008; De Krom and Dessein, 2013; Dessein et al., 2013; Saunders 2015).

In conventional, vertically organised AES, public appreciation of farmers' agri-environmental efforts is presumed rather than actively fostered. Regionalised agri-environmental governance arrangements, in contrast, enable farmers to more actively establish bridging socio-cultural ties with other stakeholders who are involved in the arrangements. Kneafsey (2010) distinguished between three analytically distinct modes of regionalisation that may enable the establishment of such bridging ties: 1) *re-scaling*—the devolvement of governance functions to regional levels; 2) *re-connecting*—the (re)creation of social relations between rural stakeholders in situations of co-presence; and 3) *re-spacing*—the (re)creation of social relations between rural stakeholders that are distant in time and space with the use of informational arrangements such as labels and other symbolic tokens. Following the theory of capital as outlined above, such modes of regionalised agri-environmental governance will only yield bridging social capital for farmers if their agri-environmental production fits in with non-farming agents' categories of perception and appreciation of agri-environmental work. Whether and why farmers are inclined to, and succeed in building up bridging social capital by participating in regionalised AES, are the questions to which we turn next.

3. Data and methods

To empirically explore how farmers' social capital affects and is affected by their participation in regionalised AES, we conducted in-depth case studies of three regionalised agri-environmental projects from Flanders, Belgium. In this federal EU Member State, the government of Flanders (the Dutch-speaking northern part of Belgium) is responsible for agricultural and rural affairs within its territory. Since 1999, the Flemish government has—following EU guidelines—implemented AES that target individual farmers who are willing to voluntarily contract an agri-environmental agreement. These AES are designed by the Flemish Land Agency (VLM) and the Division of Sustainable Agricultural Development (ADLO) of the Flemish Department of Agriculture and Fisheries. Flemish AES typically cover a period of 5 years, provide fixed-rate payment for prescribed environmental measures, and leave little flexibility to farmers (they are 'one-size-fits-all') (Mettepenningen et al., 2013). In recent years, however, different Flemish governmental and non-governmental organisations have begun to experiment with alternative, often regionalised governance arrangements to organise farmers' participation in AESs, which makes Flanders a pertinent research area (Vandermeulen et al., 2012). Each of the three projects that we have selected to include in our study promoted voluntary environmental management by farmers based on a different one of the three regionalised governance modes as distinguished by Kneafsey (2010): those of 're-scaling', 're-connecting', and 're-spacing'. We selected these analytically distinct cases to include diversity in our study in terms of the bridging social linkages that may be established with the use of regionalised governance arrangements (rather than to investigate the distinct merits of the different modes of regionalisation), which is essential given our aim to explore interrelations between farmers' participation in regionalised AES and their bonding and bridging social capital.

We studied the three cases by conducting semi-structured interviews with 40 key stakeholders of the projects (Table 1) and by analysing texts on project websites between October 2010 and September 2011. We commenced with analysing project websites and interviewing project leaders to gain insight into the

Table 1
Number of interviewees according to case and type of actor.

	Devolved governance of brook embankments in a river basin	Linking landscape-producers and –consumers in a situation of co-presence	Marketing agri-environmental services through a short food supply chain
Farmers	7	5	2
Farmers' unions representatives	1	1	–
Project leaders (governmental agents)	1	1	–
Project leaders (NGO personnel)	–	–	2
Governmental agents	–	–	1
Nature conservationists	3	–	–
Villagers/industrial companies	–	3/3	–
Mill/bakers/consumers	–	–	2/3/5

organisation of the regionalised governance arrangements. Subsequently, we selected—with the help of snowball sampling starting with the project leaders—members from the different stakeholder groups who were involved in the arrangements. We interviewed stakeholders who differed in terms of background variables (geographical location, age) and relations to the projects (early/late participants, enthusiasts about or critics of the projects) to obtain a maximum variation sample that avoids an undesirable bias in our data (Marshall, 1996).

Interviewees were questioned with the help of a semi-structured interview guide that was slightly adjusted according to the specifics of the project under study and the type of stakeholder who was being interviewed, but which invariably dealt with: interviewees' motivations to become (or not to become) involved in the three regionalised agri-environmental projects; interviewees' assessments of the economic and ecological advantages and disadvantages of the project arrangements; interviewees' perceptions and appreciations of farming landscapes and how the projects had affected these perceptions and appreciations; and interviewees' social relations with other stakeholders of the projects and how the project had affected these relations. All interviews were recorded and transcribed, and analysed with reference to interrelations between the implementation of the regionalised projects, stakeholders' perception and appreciation of farming landscapes, and the pre-existence and generation of stakeholders' bonding and bridging social capital.

4. Introducing the case studies

4.1. Re-scaling: devolved governance of brook embankments in a river basin

In the north-east of Flanders, a Water Board¹ ran the project 'managing brook embankments in the Dommel and Warmbeek river basin'. This project centred on inciting farmers situated next to (tributaries of) the 'Dommel' and 'Warmbeek' rivers to contract the agri-environmental agreement 'parcel boundary management' with the Flemish Land Agency (VLM), which is authorised to sign and monitor Flemish agri-environmental agreements within the EU Common Agricultural Policy framework. A Water Board employee operated as a local intermediary between farmers and the Agency. Unlike VLM-employees who generally respond to farmers' demands to contract agreements, the Water Board employee pro-actively solicited farmers' participation in the project through on-farm visits. The Water Board additionally offered to plan and execute on-site parcel boundary development in consultation with the farmers, and to assist farmers in meeting all administrative responsibilities that come with the agri-environmental agreement.

The Water Board asked farmers to manage interconnected, manure- and pesticide-free grass berms on brook embankments. These grass berms were to avoid the run-off of fertilizers and pesticides to watercourses, and thus contribute to meeting water quality standards as set in the EU Water Framework Directive. Moreover, the grass berms were to enhance regional biodiversity and serve as ecological corridors in one of the Flemish Natura 2000 sites. Finally, the connected grass berms were to facilitate brook clearance (grass berms are better accessible for clearing machines than crop fields) and with that enhance the possibilities to manage local water levels. The Water Board adopted a devolved governance approach to seek for farmers' voluntary cooperation in establishing grass-berms on brook embankments, and therewith forestall conflicts with these farmers. Such conflicts would emerge when the government would have to expropriate brook embankments to meet European water quality standards. Furthermore, the Water Board intended to foster an improvement in the relations between two of its most important constituencies—farmers and nature conservationists—by integrating both nature conservation (biodiversity) and agricultural (water level management, forestalling land expropriation) objectives in the project design. In 2011, the Water Board met its aim of establishing 30 kilometres of grass berms after two instead of three years, with the cooperation of 60 farmers (Water Board The Dommel-Valley, n.d.).

4.2. Re-connecting: linking landscape-producers and –consumers in a situation of co-presence

Over the past two decades, industrial activity in the port area of the Flemish city Ghent has expanded rapidly. To ensure the quality of life in villages neighbouring the port, the Flemish government gave the VLM the remit to create so called 'connection zones' between industrial and housing areas, which are to fulfil different buffering functions (visual, noise, fine dust reduction, distance). In 'green' parts of the connection zones (involving land that is owned by the government) the VLM had to develop parks and forests. In 'yellow' parts (agricultural land), additional trees are to be planted at parcel boundaries.

The VLM decided not to expropriate agricultural parcel boundaries, but to request farmers to voluntarily contract an agri-environmental agreement. The farmers, however, considered the governmental subsidy for parcel boundary management too low to contract an agreement: due to the growth of the port of Ghent, the acreage of available agricultural land in the area had declined strongly, making the remaining agricultural land too valuable a productive asset to accept the subsidy. Because a raise of the governmental subsidy is unauthorised state aid according to EU legislation, the VLM decided to establish a private 'landscape fund' from which farmers can be paid an additional compensation for their parcel boundary management. Considering farmers 'landscape-producers' and villagers and industrial companies that are located near the port area 'landscape-consumers',

¹ Flemish Water Boards are governmental agencies that are responsible for water management in areas that cover a river basin, or a part of such a basin.

the VLM asked these latter stakeholders to donate money to the fund. Besides with this mixture of public and private economic incentives, the VLM aimed to stimulate farmers' participation by co-planning with farmers which type of trees were to be planted at which parcel boundaries. VLM-employees also actively approached farmers, and subsequently representatives of villagers and industrial companies, to solicit their involvement in the project. By September 2011, 17 out of a total of 36 farmers located near the Ghent port area had joined the project, resulting in seven kilometres of buffering trees (VLM, n.d.).

4.3. Re-spacing: marketing agri-environmental services through a short food supply chain

In the Flemish region 'Haspengouw', the non-profit organisation *Regional Landscape Haspengouw* (RLH)² started the project *b.akkerbrood* ('brood' means 'bread'; 'b.akker' is a conflation of the Dutch words for 'baker' ['bakker'] and 'arable field' ['akker']). This project grew out of a larger project in which municipalities who were located in the province Limburg (in which Haspengouw is situated) had been asked to 'adopt' one endogenous plant or animal, and in this way commit itself to creating favourable living conditions for these species and to sensitise their inhabitants about the need to conserve the species. Two municipalities had chosen to adopt a farmland bird, and had asked the RLH to design a plan of action. The RLH came up with the regional bread supply chain project, which centred on integrating farmland bird protection in the production and marketing of bread. Farmers located in *Haspengouw* were asked to grow wheat and harvest 90% of it in autumn; 10% was to be left on the field as winter feed and a hiding place for farmland birds until spring arises at a location of the farmers' choice. The harvested wheat was ground by a regional mill, and transported to bakeries in Limburg who were free to add up to 20% of the ingredients of the *b.akkerbrood* flour before baking the bread, and thus to work in an 'artisanal' way. The bread was labelled and sold in bags including information on the bird-friendly farming method and the regional provenance of the bread (RLH, n.d.).

The project had three main aims: improving the living conditions of farmland birds; raising public awareness about the need to protect and enhance farmland biodiversity; and managing an ecologically sound food supply chain that operated without governmental subsidies. To meet these three aims, RLH chose to focus its project on the production of wheat which is a popular feed for farmland birds, and bread which is a Flemish staple food. At its height in terms of numbers of involved stakeholders by September 2011, the project had involved one mill, 27 bakeries, and three farmers who cultivated wheat on in total ten hectares. Two farmers had, however, already left the project, for reasons discussed below.

5. Results

In the following two subsections, we empirically explore how the involvement of farmers and of other stakeholders in the three regionalised agri-environmental governance arrangements were generative of and generated by these agents' bonding and bridging social capital. In the first subsection, we discuss the involvement of farmers in the three projects. Subsequently, we discuss other stakeholders' participation in—and appreciation of—the three projects.

5.1. Farmer participation in the regionalised AES

In Flanders, most farmland is located in peri-urban areas (Meeus and Gulinck, 2008), in which—as the project leader of the brook embankments management project phrased it—“*farmland is being sacrificed for everything that requires land: buildings, industry, roads, nature conservation areas. . . so the pressure on [farm]land is very high*”.³ In recent years, farmers have seen farmland that was considered of high nature value—including parcels that had been enrolled in AES—being legally reclassified into a protected wildlife area (Mettepenningen et al., 2013). This has caused farmers to “*fear that it [a conversion of agricultural land into AES land] won't be temporary. That they'll say: 'it should stay as it is now'. Then you've lost that piece of land. But if you need it, you should be able to use it again. . . to feed the people*”. Against this background, all interviewed farmers responded to the question of how they perceived the land that they had enrolled in the regionalised AES, by emphasising that it was and should remain farmland. The farmers clarified that they considered and managed the AES land as “*extensive farmland*”, which implied that they were careful to keep it in an “*agricultural condition*” (weed and pest free) and if possible agriculturally productive (by e.g. reaping fire wood from trees and nutrient-poor horse feed from grass berms). In doing so, the farmers aimed to make some extra money, and to limit the nature value of their agri-environmental amenities so as to avoid that they would eventually lose the legal right to farm on the AES land: e.g. “*if I see a tree starting to grow next to a brook. . . then I remove it, otherwise I will not be allowed to cut it later on and I'll be stuck with it*”.

Moreover, the farmers managed their AES land as ‘extensive farmland’ because they attached much importance to keeping their land ‘tidy’ (in Dutch: “*proper*”, which apart from ‘tidy’ also means ‘clean’ and ‘well-maintained’). The farmers elucidated that working tidily was central to their self-image and self-esteem: “*keeping crops tidy, that's my source of professional pride*”, and “*nature must be tidy, otherwise I'm not happy with myself—it must be maintained*” (see also Vanslebrouck et al., 2002; Silvasti, 2003; Dessein and Nevens, 2007). In part, agricultural structural changes had fostered this disposition (see also Haggerty et al., 2009; Sutherland, 2013): “*agriculture has developed in such a way that you have to produce as much as possible on as little land possible. We do not [any longer] select our seeds; that's done by seed-breeding companies. We are stuck within all kinds of legislative frameworks. So what remains, what makes me proud professionally, is to keep my crops as tidy as possible*”. Additionally, peer-pressure incited farmers to maintain their AES land tidy. Not only did farmers consider it their responsibility to forestall negative impacts of their AES land on the agricultural productivity of neighbouring farms, which would e.g. occur when weeds would sprout or trees would throw large shadows on adjoining land. But the farmers also indicated that their peers initially condemned their participation in the regionalised AES in terms ranging from “*a real farmer doesn't do that [participate]. . . a real farmer grows food*” to calling them “*a bad farmer*”, “*a 'green one' [a nature conservationist instead of a farmer] or sloppy*”, “*no longer a real farmer but a 'quitter'*”, or even a “*corruptor of the trade*”. To counter such negative perceptions and forestall significant status loss amongst peers, one farmer who participated in the short bread supply chain preferred to locate his agri-environmental amenities “*only on places where it isn't visible to everyone. Otherwise other farmers can see that it isn't tidy*”⁴ (cf. Burton et al., 2008; Saunders, 2015). Others aimed to maintain their AES land as tidy as possible (by e.g. cutting existing

² A 'Regional Landscape' is an association of provincial and municipal governments, and organisations that represent nature conservation, tourism, hunting and agricultural interests. Regional Landscapes aim to create social support for landscape and nature management within regions that are considered to have a distinct landscape-identity, and which typically cover several municipalities.

³ All quotes from the interviewees are translated by the author.

⁴ This farmer left this project because his involvement in the project made him feel a 'bad farmer' for two reasons: it proved impossible to keep his land tidy while leaving 10% unharvested wheat during the winter because this wheat became infested

trees before planting new ones to ensure a uniform growth of trees on their land, and mowing grass berms as soon as this was contractually permitted). In this way, they aimed to demonstrate to their peers that they weren't simply giving up farmland and remained 'good farmers' (Silvasti, 2003; Sutherland, 2013; Saunders, 2015; Taylor and Van Grieken 2015; Riley, 2016): "farmers keep a good eye on each other to see who do and do not participate. So all [AES land] is neatly maintained".

Corroborating other Bourdieusian analyses of (UK, German, Swedish) farmers' participation in AES (Burton et al., 2008; Saunders, 2015), the above findings show that the farmers were situated a social field in which tidy and agriculturally productive farmland represented an important source of cultural capital. Resultantly, by participating in the regionalised AES, the farmers risked incurring losses in social status and bonding social capital—which they aimed to limit by maintaining their agri-environmental amenities tidy. When aiming to grasp why the farmers nonetheless chose to participate in the regionalised projects, one obvious assertion would be that the farmers acted on utilitarian grounds and that the remunerations that they received amply compensated for their losses in agricultural productivity and, possibly, also in cultural and social capital. Yet, while the farmers welcomed the fixed source of income in times of highly fluctuating agricultural prices, most argued that "one shouldn't [participate] because of the remuneration, as I don't think that the remuneration compensates for all losses [in agricultural productivity]". Nevertheless, all farmers considered the remuneration a *sine qua non*—both because "as long as I am financially compensated, I can explain to other farmers why I do it [participate]", and because "it is a form of respect: you receive a remuneration because you do something [for society]".

This latter argument brings us to the principle reason why the majority of farmers did join the regionalised agri-environmental projects: the farmers considered their participation a possibility to turn oppositional relations with non-farming stakeholders into more co-operative and mutually respectful social ties (cf. De Loë et al., 2015; Taylor and Van Grieken 2015). By demonstrating that they were "willing and able to take responsibility" for meeting environmental objectives, the farmers wanted to offer governmental agencies and other stakeholders an alternative to expropriating farmland that "is a much cheaper solution, which can be realised much quicker than when the government has to do it all by itself [through expensive and lengthy expropriation procedures]". Expressing a line of thought shared by most of the farmers, one farmer stipulated that he voluntarily planted buffering trees "not because I want to make money by doing so [but because] otherwise there's a larger chance that the parcel boundaries will be expropriated".

Furthermore, the farmers chose to participate in the projects in which they could co-plan with project personnel where agri-environmental amenities would be located and/or which type of flora would be planted, so as to convey to governmental agents that they can "achieve much more by cooperating with farmers" than by commanding and controlling them. According to the farmers, environmental production does not necessarily oppose agricultural production as long as it is carefully fitted in with farm-specific land uses patterns (by e.g. planting trees only next to meadows, instead of next to crop fields where shadows decrease yields and roots may damage ploughs). The farmers complained that conventional AES fail to address their willingness to sustainably integrate environmental production in their farm management—but rather trigger farmers' resistance to agri-environmental measures—because they require the implementation of standardised measures that often

conflict with agricultural production practices (cf. Kaljonen, 2006; Morris, 2006). As one farmer argued: "Currently trees are cut in the dark because it is prohibited to cut one. But [governmental agents] have to think along with farmers. If I say: 'that tree is in the way for that reason' [it obstructed the movements of hay loaders], then they should say: 'okay, you may cut it if you plant two trees over there. ...' That's how it should go. You have to come to the farm to observe and understand what a farmer wants."

Finally, by joining the regionalised AES, the farmers aimed to improve their general public image and, more specifically, their relations with regional stakeholders like nature conservationists, neighbouring citizens and consumers in order to secure their "social license to produce". The farmers who participated in the short bread supply chain project feared that the current EU subsidies for agri-environmental management only contribute to rather than help to overcome a bad public image of agriculture, "because everybody knows how high the EU subsidies are and how much money is being collected [by farmers]". To show that farmers are not simply into agri-environmental management to make some easy money, but that farmers are instead willing to actively meet public (in this case: consumer) demand for agri-environmental change, they participated in the *b. akkerbrood* project. The farmers who participated in the other two projects principally aimed to improve their relations with nature conservationists and fellow villagers, who threatened their livelihoods by e.g. advocating a legal reclassification of farmland into a nature conversation area and by protesting against farmers' municipal environmental license applications. These farmers participated in the projects starting from the idea that "if you cooperate, they [nature conservationists and fellow villagers] have less reasons to make strict demands or start to expropriate land or whatever it is that they can do", and to convince non-farming regional stakeholders that "agriculture is here and it should stay here. . . because we also maintain the landscape".

In sum, farmers principally enrolled themselves in the regionalised AES to display their willingness to voluntarily meet public demands for agri-environmental change—and in this way elicit more cooperative and appreciative stances by governmental agents, nature conservationists and citizen-consumers. By building up such bridging social capital, the farmers aimed to avoid and overcome conflicts with non-farming stakeholders that threatened their farms' long-term viability. Following this line of reasoning, the farmers joined the regionalised AES voluntarily, yet also out of necessity: "if you don't cooperate, then you get such a bad public image that the pressure will rise too much, and [your land] will be expropriated by the government." Various farmers indicated that this perceived necessity, along with the evidence that they provided that AES land could be maintained tidy and as 'extensive farmland', convinced a growing number of their peers that managing the agri-environmental amenities was a sign of good farm management (cf. Sutherland, 2013): "when one farmer sees it at his neighbour, then he becomes dragged along and sees that it's actually an advantage, rather than a disadvantage". At the same time, however, the farmers stressed that their participation should be considered an experiment. If the other stakeholders would not reconsider their oppositional and unappreciative stances towards the farmers, then the farmers would cease to participate in the regionalised AES: "if you don't get anything in return, then it's over. Then it ends after the 5 years [to which the farmers contractually committed themselves]". Whether the non-farming stakeholders appreciated farmers' agri-environmental efforts and considered them a basis for building up bridging social capital as the farmers hoped, are the questions to which we turn next.

with 'weeds and vermin', and the project leader had openly questioned the quality of the wheat that he had produced.

5.2. Other stakeholders' involvement in the regionalised AES

Farmers who managed grass berms at brook embankments *inter alia* aimed to overcome oppositional relations with nature conservationists by voluntarily helping to meet regional ecological objectives. We interviewed three regional nature conservationists who appreciated “*that they [the farmers] show that they do have something of a ‘heart for nature’*”. Yet, the nature conservationists also held that regional farmers tend to fail to “*distinguish between real nature, so to speak, and agricultural nature*”, the former being far more biodiverse. Therefore, the nature conservationists criticised the brook embankments management project for enabling farmers to manage their grass berms as extensive agricultural land, according to their preferences for agricultural nature. Such ‘tidy’ management would not only inhibit the enhancement of biodiversity, but even lead to “*a more monotonous landscape*” and thus a biodiversity decline as all the brook embankments were uniformly transformed into “*a strip of grassland that will be mowed twice a year*”. The nature conservationists lamented that they were only informed about rather than actively involved in the design of the project. Such an involvement could help to ensure an integration of nature conservation objectives in the management of the brook embankments and contribute to overcoming deep-seated misunderstandings: “*I sense that farmers would appreciate it if we could clearly give our opinion. Their biggest fear is that they cannot continue to farm on their land. . . but they currently have no clue what we actually want.*” Resultantly, the nature conservationists concluded that the project was “*a missed opportunity to bring our groups [of farmers and nature conservationists] a bit closer together.*”

Similarly, a VLM employee who was responsible for contracting farmland bird AES in the region of Haspengouw, welcomed the short bread supply chain project for “*bringing the problem [of declining farmland bird populations] to the attention*” of farmers and citizen-consumers. Yet, by allowing the farmers to choose where to leave the 10% of unharvested wheat during the wintertime, it would predominantly be located in areas that are according to scientific studies unattractive for farmland birds. As a result, the *b. akkerbrood* project would largely fail to contribute to farmland bird protection.

In the context of the buffering trees management project, villagers also fundamentally criticised the project’s design and implementation. In this context, the villagers were—together with industrial companies—asked to financially support farmers who were willing to plant buffering trees. The villagers, however, unanimously refused to donate money to the project. After having collectively lost much land to the expansion of the port of Ghent in recent years, villagers argued that it was up to the government and to industrial companies, rather than to villagers, to ensure that buffering trees would be planted. Furthermore, villagers stipulated that they were principally concerned about whether or not they could enjoy buffering trees when looking out of their windows or walking through their neighbourhoods. From this perspective, they denounced the project’s focus on ‘landscape production’ by farmers only: villagers saw no legitimate reason to differentiate between planting trees on farmland and on other types of land (including home gardens), and to distinguish between farmers and villagers as respectively ‘landscape producers’ and ‘landscape consumers’. Rather, villagers contested the project for “*remunerating farmers for planting trees that they cut illegally in the past*”—including just before planting new trees—and considered it “*absolutely not done to ask villagers who haven’t cut the trees to pay farmers to replant them*”. While the villagers hoped that “*farmers will start to see that there are also advantages to planting trees*”, they argued that the farmers participated “*for nothing but the remuneration*” and held that “*many more initiatives and time will be required*” before farmers’ agri-environmental management may serve as a basis for improved relations between farmers and neighbouring villagers.

While villagers unanimously refused to financially support farmers’ parcel boundary management, 20 industrial companies did donate a total of €85,000 to the project. Company-representatives indicated that their companies did not support the project to promote green buffers around their own premises; in fact, none of the planted trees were located near the interviewees’ companies nor in between these companies and the villages. Rather, the companies donated money to demonstrate their willingness to invest in a green regional landscape in which different land-uses can coexist, and thus “*maintain in good standing with the villagers [who live in the Ghent harbour zone], because this guarantees our continuity*”. Hence, what principally mattered for the companies was not who planted and maintained the trees in what exact place, but that it was done properly somewhere in the area with their financial support, in a way that was appreciated by the villagers. Hence, the companies’ support for the project did not necessarily express an appreciation of farmers’ willingness to plant and maintain trees: rather, two of the three interviewed company representatives joined the villagers in criticising the project for addressing only farmers as ‘landscape producers’, and the farmers for cutting existing trees before planting new ones and for participating only to make some extra money. Lacking trust in farmers’ willingness to maintain the green buffers in the long run, and in view of the villagers’ lack of support and appreciation for the project, a company representative had come to the conclusion that “*the project is a partial failure*”.

In the context of *b. akkerbrood* project, finally, a mill, bakers and consumers were connected to farmers’ agri-environmental management through a regional bread supply chain. The mill concerned a relatively small company that considered the project an opportunity to co-create and tap into an economically and ecologically sound niche market. It was the only regional mill that proved willing and able to join the project: larger mills could not grind the relatively small quantity of wheat profitably, while other small mills failed to meet operational food safety standards as laid down by the Belgian federal government. From this regionally unique position, the mill had decided to join the *b. akkerbrood* project and to cooperate with the project leader from the RLH to “*search for win-win situations for all stakeholders, starting from [the ideas of a] short supply chain and securing biodiversity*”.

All three interviewed bakers indicated that they sold the bread because they appreciated the high quality of the flour and the freedom to mix ingredients of their choice in it, which enabled them to “*respond to the local market and adjust the b. akkerbrood to the taste of the customers*”. Moreover, the bakers considered the bread an opportunity to meet consumer demand for regional products and in this way differentiate their bakeries from other bakeries and, especially, from supermarket bread sections. While one of the bakers was fully ignorant of the ecological rationale behind the *b. akkerbrood*, the two other bakers considered the opportunity to support regional farmers in protecting farmland birds an additional reason to retail the bread. These two bakers indicated that they tried to communicate the farmland bird-friendly production method of the wheat to their customers. Yet, these bakers also indicated that their consumers principally bought the bread because of its taste: “*So I do not explain it [the provenance of the bread] elaborately [to customers]. As long as they like it, it’s ok. As long as you make a good bread, you’re doing a good job and they keep on buying it.*”

In line with this observation, consumers explained that they principally purchased the bread because they preferred its taste (“*it tastes like the nice farmer’s bread from the past*”), texture, and digestibility over other types of (especially industrially baked) bread. Four out of the five consumers interviewed additionally appreciated the regional provenance of the bread—three of which considered this provenance a heuristic for ‘natural’ and therefore healthy food: “*I always try to look out for the most natural*

product. . . to buy a good product and eat healthily". The fourth consumer who appreciated the bread's regional provenance preferred to buy foodstuffs with few food miles for environmental reasons, and was the only consumer who aimed to support farmers' agri-environmental efforts through her purchase. Anticipating such dispersed consumer rationalities for buying the short supply chain bread, a farmer who produced *b. akkerbrood* wheat concluded that the project ultimately failed in establishing innovative relations between farmers and consumers: "I don't feel appreciated by consumers when they buy the bread [because] consumers often don't even know where the wheat came from".

6. Discussion

In this paper, we set out to explore whether and why a regionalisation of agri-environmental governance helps to address the criticisms on conventional AES for assuming rather than fostering a public appreciation of farmers' environmental work, and for failing to incite farmers to sustainably integrate environmental production in their agricultural business development. Starting from the observation that unlike conventional, vertically organised AES, regionalised AES entail possibilities for farmers to actively establish bridging social relations with non-farming stakeholders, we focussed our exploration on what we have identified to constitute a lacuna in current understandings of farmer participation in AES: the role of bridging social capital. Building on the Bourdieusian theory of capital and the distinction between bonding and bridging social capital, we have examined how these forms of social capital inter-related and were being generative of and generated by farmers' participation in regionalised AES.

Our study findings revealed seemingly opposing motivations of farmers to, on the one hand, build bonding social capital with peers by maintaining their land agriculturally productive and tidy and, on the other hand, build bridging social capital with other rural stakeholders by integrating environmental production in their farm management. That is, in line with other Bourdieusian analyses of farmer participation in AES (Burton et al., 2008; Burton and Paragahawewa, 2011), we observed that farmers' socio-cultural preference for landscape symbols of high agricultural productivity (including 'tidy' land) inhibited farmers' propensity to take environmental action that results in less agriculturally productive and more 'messy' landscapes. Being situated in a social field that was structured according to the aims of protecting farmland against a conversion to other land uses and of running a viable farm business by maximising one's agricultural production, participation in AES was likely to elicit peer criticism and, potentially, a loss of bonding social capital.

Yet, we also revealed that farmers were willing to voluntarily participate in regionalised AES to build up more cooperative and appreciative, bridging social ties with other regional stakeholders. As evidenced by farmers' efforts to maintain AES land agriculturally productive and tidy, this aim was at tension with established agricultural field-specific norms. However, farmers' efforts to obtain bridging social capital by managing agri-environmental amenities should not simply be understood in opposition to farmers' conventional 'productivist' orientation (see also Saunders, 2015). In part, farmers' participation in the regionalised AES can be comprehended as a defensive move in view of opposition to their 'productivist' practices by other regional stakeholders: farmers dedicated small parts of their land to environmental production to secure a freedom to run the remaining parts of their farm according to their agricultural production-oriented dispositions. At the same time, we found evidence that farmers' agri-environmental efforts with the intention to secure a 'social license to produce' prised open how farmers conceived of 'good farm management' and associated

landscape features. According to various farmers interviewed, their participation in the regionalised AES convinced a growing number of their peers that agri-environmental amenities could signify prudent agricultural business development.

This latter observation indicates that farmers' willingness to build up bridging social capital may act as a lever of change in farmers' socio-cultural norms and landscape preferences in more environmentally sound directions. However, such change is only likely to be substantive and lead to long-term, pro-environmental behaviour change of farmers, if farmers actually succeed in building up bridging social capital by receiving public appreciation for their agri-environmental work. Notably, the three regionalised AES under study were little successful in fostering such appreciation. An assessment of the reasons that underlie this limited success warrants the following policy recommendations pertaining to how future AES may establish a better fit between farmers' agri-environmental efforts, and other stakeholders' demands for environmental change.

First, project-personnel (initially) focussed on securing the participation of farmers only, by soliciting their cooperation in designing and implementing agri-environmental measures. This focus was sensible as farmers' cooperation was quintessential to ensure the viability of the agri-environmental projects. Yet, it implied that other project stakeholders were eventually confronted with fixed rather than negotiable arrangements that failed to meet their ecological interests and values. This misfit between farmers' supply and other stakeholders' demand of agri-environmental measures may possibly be forestalled by facilitating more socially inclusive designs of regionalised AES, in which project-personnel, farmers and other regional stakeholders jointly negotiate which agri-environmental measures are to be implemented. Crucially, such a more socially inclusive negotiation may help to forestall that farmers fall back on their routine 'productivist' landscape preferences when co-designing and implementing AES, by enabling them to recognise the cultural competences related to achieving other stakeholders' agri-environmental demands in the first place (Rogge et al., 2013).

Second, the projects under study commenced with an *a priori* framing of farmers as the exclusive deliverers of environmental benefits, and of other regional stakeholders as their beneficiaries. Yet, when adopting a regionalised approach, desired environmental outcomes are no longer necessarily linked to agricultural land uses but may pertain to landscape units that exceed the boundaries of farms (such as in the case of the planting of trees near the port area of Ghent to 'green' the regional landscape). When aiming to address regional rather than specifically agricultural environmental change, other regional land users may—legitimately—contest governance arrangements that focus on farmers as 'landscape producers' only and, resultantly, be reluctant to appreciate farmers' participation in these arrangements. In these cases, addressing not only farmers but also other regional land owners as potential 'landscape producers' may be more socially robust, and more pertinent to secure farmers' long-term environmental commitments by forestalling a policy-oriented contestation of these commitments.

Third, in the case of the short bread supply chain project, the above link between an agricultural land use and the deliverance of environmental benefits was conceptually evident. In this case, however, we found that in the flows of the (processed) wheat and of adjacent product information within the food chain, farmers' environmental efforts became dis-embedded from their agricultural context and were multi-interpretably re-embedded—or even fully 'lost in translation'—in other food chain practices. While this multi-interpretability facilitated the involvement of different food chain actors in the arrangement, it also made a farmer conclude that the project failed in fostering an improved public image of agriculture as he hoped it would. Relatedly, in the context of the

parcel boundary management project in the Ghent port area, we saw that villagers and company representatives expressed a lack of confidence in farmers' willingness to sustainably maintain the trees that they had planted. These observations point to the need to not only facilitate appropriate flows of information between farmers and other stakeholders when designing regionalised AES, but also throughout the implementation of the AES to foster insight and trust in farmers' environmental engagements.

7. Reflection

Our study has corroborated earlier Bourdieusian analyses of farmer resistance to AES that situated this resistance in farmers' socially shared, 'productivist' norms and dispositions (Burton et al., 2008; Burton and Paragahawewa, 2011). At the same time, our study supports growing evidence that these norms and dispositions are open to (incremental) change. Commentators have argued that in view of shifting institutional (political, market, societal) contexts, farmers are likely to experiment with practices and strategies that less faithfully reproduce dominant agricultural norms in a struggle for different kinds of (social, cultural, economic) capitals and social recognition by peers. When such experiments prove economically successful, these may foster shifts in farmers' perceptions and appreciations of good farm management (and of attendant cultural symbols) and, hence, in the constitution of social status and bonding social capital (Haggerty et al., 2009; Sutherland, 2013; Saunders, 2015; Riley, 2016). To these dynamics of change, which centre on how external pressures may incite farmers to re-position themselves vis-à-vis one another, our study adds that external pressures may also incite farmers to adopt innovative (including agri-environmental) practices to actively re-position themselves vis-à-vis non-farming stakeholders, in order to secure their businesses' long-term viability by building up bridging social capital.

Notably, concluding that the regionalised agri-environmental projects under study incited a fundamental change in farmers' perspectives on agri-environmental management would be a bridge too far, given the projects' limited success in meeting public demand for agri-environmental change—and hence in fostering the bridging social capital that farmers aimed to obtain by joining the projects. Yet, the regionalised projects did tap into, and allowed us to reveal a motivation of farmers to participate in AES that has to date received scant scholarly attention: to ameliorate their social relations with other rural stakeholders. This finding opens up different interesting venues for further exploration.

First, our findings are particular to a Flemish, largely (peri-)urbanised context in which farmers face much pressure on their land and to attune their practices to the environmental demands of other stakeholders. Studies in other regions and countries are necessary to reveal the generalisability of our findings with regard to farmers' willingness to obtain bridging social capital, and hence the pertinence of designing governance arrangements that seek to foster bridging social ties between farmers and other agents in an attempt to promote agri-environmental change. Second, following our aim to explore the role of bridging social capital in mediating farmer participation in regionalised AES, we have conducted an analysis across cases that covered three analytically distinct modes of regionalisation. This leaves open the question of the specific merits of the three modes of regionalisation in terms of fostering sustainable agri-environmental change. Finally, the compatibility between conventional and regionalised approaches to delivering AES warrants further investigation. Rather than considering regionalised arrangements a radical alternative to more vertically organised AES, it seems more fruitful to explore how (aspects of) regionalised approaches can be integrated in the deliverance of conventional AES to ensure that this established policy

instrument fosters an integration of environmental production in agricultural business development, and delivers public goods that the public demands.

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