

Partnering for nature conservation NGO-farmer collaboration for meadow bird protection in the Netherlands

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ABSTRACT

In order to reverse the trend of continuous decline in species diversity and abundance in agricultural landscapes, various governance arrangements have been implemented that promote, organise and finance nature conservation by farmers. The scientific literature predominantly focuses on agri-environment schemes (AES), i.e. publicly funded financial compensation schemes for farmers who implement prescribed conservation measures. Less attention has been paid to governance arrangements initiated by actors outside the public domain. This paper analyses a unique partnership between a nature conservation NGO – BirdLife Netherlands (BLN) – and a network of about 130 dairy and cattle farmers, aimed at meadow bird protection in the Netherlands. Meadow birds breed in large numbers in the Netherlands, mainly on farmland, but their numbers have been declining as a consequence of agricultural intensification, urbanisation and predation, amongst other things. Established in 2010, the partnership is gradually evolving from bilateral cooperation between BLN and individual farmers into a network. Based on desk research, interviews and five focus group sessions with almost 40 representatives of the partnership, we conclude that the main (perceived) achievements include: a large contribution to awareness of and recognition for the important role and efforts of farmers in meadow bird protection among citizens, politicians, policy-makers and companies in agri-food chains; a modest contribution to improving conservation efforts by participating farmers; and a modest contribution to their knowledge about conservation of meadow birds. The main success factors are the alignment of interests and complementarity of the partners and motivation derived from meeting peers. The partnership clearly complements AES in terms of its functions.

1. Introduction

In Europe, species abundance and diversity in agricultural landscapes have been declining as a consequence of agricultural intensification and scale enlargement next to factors such as urbanisation and fragmentation (Stoate et al., 2001; Sanderson et al., 2013; Ollerton et al., 2014; EEA 2015a,b). In response, agri-environment schemes (AES) have been implemented in order to motivate and enable farmers to implement conservation measures. In AES, farmers can voluntarily apply for financial compensation for implementing measures such as creating and maintaining flower-rich fields or field margins, temporary high water tables, the preservation of landscape elements, or other measures to protect specific species (Grüebler et al., 2012). Findings regarding the ecological performance of AES are mixed (Kleijn et al.,

2006; Whittingham, 2007; Batáry et al., 2010, 2015) and AES has not improved the conservation status of many species which breed in agricultural landscapes (EEA, 2015a). A recent study of AES, and other EU policies for protecting farmland birds, concludes that they “seem to generally attenuate the declines of farmland bird populations, but not to reverse them.” (Gamero et al., 2017: 1).

Far less attention has been paid to agri-environmental governance by non-state actors such as companies in agri-food chains or NGOs centred round nature conservation (Runhaar et al., 2017; but see Van Amstel et al., 2007 on voluntary standards for promoting agrobiodiversity or Taylor, 2010 or Polman et al., 2011 on agri-environmental cooperatives). How do these other governance arrangements¹ aim to motivate farmers to contribute to nature conservation, and what are their potential and limitations in terms of contributing to nature

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¹ We define a governance arrangement as a specific structure in which a group of actors interacts round a specific objective (cf. Polman, 2002 en Driessen et al., 2012). In the literature often distinction is made between top-down governance arrangements with governments in a leading position; interactive arrangements in which governments, companies, NGOs and other stakeholders interact on a more horizontal level; and bottom-up arrangements based on self-governance by companies and NGOs (Hysing, 2009).

conservation in farmland?

In this paper we focus on *partnerships* as a specific private governance arrangement for nature conservation by farmers. Partnerships distinguish themselves from other governance arrangements because of their ‘multi-sector’ and collaborative nature (Bryson et al., 2006). Partnerships in this paper are collaborative, institutionalised arrangements between actors from two or more sectors of society (market, state and civil society) aimed at the provision of collective goods (Glasbergen, 2007). Other distinct features of partnerships are their voluntary character; the non-hierarchical relationships between the partners; their logic of utilising the complementary resources and capacities of the actors involved in order to address problems that none of these actors can address alone; and the active role that companies play in contributing to collective goods such as biodiversity (Bitzer et al., 2013; Van Huijstee et al., 2007; Bitzer and Glasbergen, 2015).

We analyse a specific partnership in the Netherlands that exists since 2010: the partnership between BirdLife Netherlands (BLN) and a group of about 130 cattle and dairy farmers (representing less than 1% of the whole farmer population), aimed at the protection of meadow birds on their grasslands. The Netherlands are of particular importance for meadow birds. Yet over the last six decades meadow birds have dropped in numbers (see for instance Fig. 1). Black-tailed Godwits, a meadow bird species of which a substantial proportion breeds in the Netherlands (Wiggers et al., 2016), have even dropped by 70% since the 1970s (Kentie et al., 2015). These trends are not only consequences of urbanisation and fragmentation but also agricultural intensification. In order to maximise agricultural productivity, wet and herb-rich meadows have been replaced by well-drained grassland monocultures, that are mown earlier, more frequent, and by even larger and faster mowing machines, reducing the opportunities for meadow birds to forage, breed and hide. Especially chick survival forms a main problem for these relative long living bird species (Kentie et al., 2013, 2014, 2015; Wiggers et al., 2016). The amount of breeding habitat and the quality decreases. Predation has been recognised as a factor explaining farmland bird decline (Teunissen et al., 2008). Predation rates have increased because the transformed landscapes favour species such as foxes, martens and buzzards.

The partnership exists next to other governance arrangements for meadow bird protection of which the most important ones are AES and farmed nature reserve areas (Runhaar et al., 2017; Westerink et al., 2017). AES funding for meadow bird protection (which forms the main part of the whole AES budget) only applies to areas in the Netherlands where still large enough populations of meadow birds are present. Farmers located in these areas can apply for subsidies in return for voluntary taking conservation measures such as postponement of the mowing date in order not to disturb breeding birds or kill chicks. Next to AES farmed nature reserve areas have been assigned where agricultural land is bought from farmers by the state and decentral governments and usually transferred to so-called reserve area management

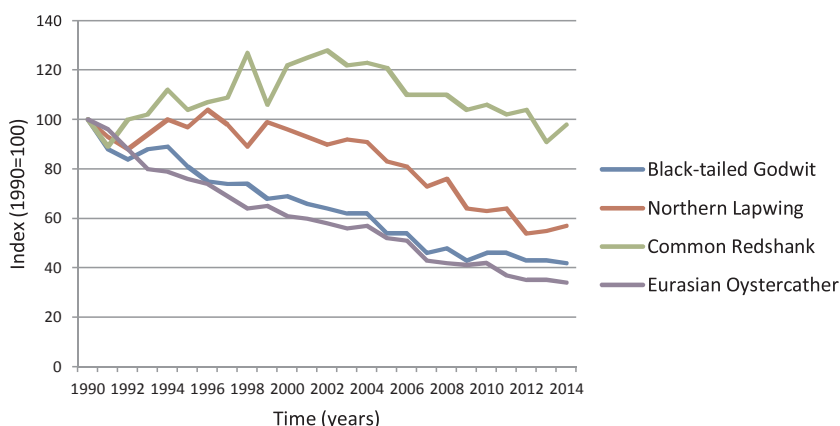


Fig. 1. Trends in numbers of meadow birds in the Netherlands. Source: CBS (2015), based on data from the Network Ecological Monitoring (CBS, SOVON and provinces).

organisations. In these nature reserve areas farming is allowed under strict conditions in order to provide favourable habitat for meadow birds (for more information about these and other governance arrangements for agrobiodiversity in the Netherlands, see Runhaar et al., 2017; Westerink et al., 2017).

The partnership is a relatively unique governance arrangement for agrobiodiversity because no public actors are involved (Runhaar et al., 2017), which has implications for its governance capacities (e.g. no direct influence on policies or legislation but on the other hand the partnership can influence other companies and the public in ways that public actors cannot; see Van Huijstee et al., 2011). The partnership also is relatively unique among other partnerships for sustainable development because the involvement of farmers, which is hardly reported in partnership literature. Lastly the partnership is relatively unique because of the involvement of a large number of farmer-partners (compare: Glasbergen, 2007).

This paper addresses the following research questions:

1. How can the partnership between BLN and farmers be characterised?
2. What are the main achievements of the partnership and what factors explain these achievements?

2. Theory

Literature on partnerships as a specific environmental governance arrangement is relatively new. The interest of environmental scholars in this particular governance arrangement emerged as a consequence of scholarly debates about the role of actors other than the government in solving environmental problems and the establishment of a growing number of partnerships for sustainable development after the Rio + 10 Summit on Sustainable Development (Glasbergen et al., 2007). Sustainability challenges addressed by partnerships include, but are not limited to, halting biodiversity loss (Bitzer and Glasbergen, 2015).

Below we discuss features that characterise partnerships (research question 1). Secondly, we distinguish the different types of achievements of partnerships as discussed in the literature and identify factors that explain these achievements (‘success factors’)(research question 2).

2.1. Characterising partnerships

Obvious features of partnerships are their objectives and their participants. The objectives of a partnership are usually negotiated between the partners and relate to partners’ own objectives and motivations to engage in a partnership (which may change over time). Companies’ motivations to engage in environmental partnerships include contributing to compliance with environmental legislation, risks reduction (e.g. reputational damage), intrinsic motivations, access to new resources or perceived business opportunities (Austin, 2007; Bitzer

and Glasbergen, 2015). Pooling resources may also reduce (transaction) costs (think of collecting information, contracting and control; Polman et al., 2011). For NGOs, partnerships are often a way to get access to financial and other resources in order to achieve their goals in more effective ways (Austin, 2007). The resources that partners bring in hence is another relevant feature of a partnership.

2.2. Achievements of partnerships and success factors

Partnerships can be evaluated against a range of criteria. Partnership literature therefore has focused on a variety of achievements of partnerships, including degree of collaboration, legitimacy and effectiveness (Visseren-Hamakers, 2013). Andonova and Levy (2003) and Visseren-Hamakers (2013) have operationalised the achievements of partnerships in terms of the *governance functions* they fulfil. The focus then is not so much on impacts of partnerships (e.g. contributing to biodiversity), but on how partnerships contribute to influencing the underlying human activities or how they aim to mobilise the public, politicians or companies to build support for problem-solving.

In this paper we adopt the framework suggested by Visseren-Hamakers (2013) and which differentiates between the following governance functions:

- *Agenda setting*: raising awareness of a particular problem;
- *Policy development*: developing public or private policies or plans. Many environmental partnerships between NGOs and companies centre round *standards*; e.g. eco-labels (Bitzer and Glasbergen, 2015);
- *Implementation*: (enabling) implementation of concrete measures that aim to resolve the problem at issue. In this paper, the partnership can fulfil an implementation function if participating farmers are supported by BLN or by other farmers in taking concrete nature conservation measures e.g. by means of financial support or by sharing knowledge;
- *Meta governance*: efforts to change the ‘governance system’, that is the rules of the game in a particular sector;
- *Improving participation*: enabling relevant actors to participate in the governance system.

Partnership literature provides inconclusive evidence about the performance of partnerships in terms of contributing to the above functions (Bitzer and Glasbergen, 2015; Bryson et al., 2006). Based on an extensive literature review, Bryson et al. (2006) propose a classification of success factors that distinguishes between initial conditions, process, structure and governance characteristics of the partnership itself, and contingencies and constraints. Additional factors suggested by Austin (2007) are the clarity and congruency of objectives, capabilities and accountability, communication, learning and commitment. Visseren-Hamakers (2013) suggests strict ambitions and a focus on outputs rather than on processes are additional success factors. From the new institutional economics literature, the extent to which a partnership reduces transaction costs as compared to acting alone is important (Polman et al., 2011). But also there should be a willingness of the actors involved to participate, e.g. out of an intrinsic motivation to contribute to the aim of the partnership (Runhaar et al., 2017). In sum, we distinguish between the following categories of success or limiting factors:

- *Initial conditions* (earlier cooperation, other governance arrangements, the goal the partnership aims to achieve);
- *Characteristics of the partners involved* (in terms of power positions and types of resources that they bring in but also rules and incentives);
- *Characteristics of the partnership* (objectives, formal and informal structures, trust, duration of the partnership etc.);

- *Internal and external motivations to participate* (a demand for nature conservation and intrinsic motivation of farmers);
- *Enabling and constraining factors* (e.g. resources and legislation).

3. Material and methods

In this Section we specify the methodology per research question. We employed various data sources: desk research (public information about the partnership published on www.redderijkeweide.nl and the report on a survey in 2014 among farmers participating in the partnership – VBN/BLN, 2014), in depth interviews with representatives of BLN (VBN/BLN, 2016–2017) and five focus group sessions with farmers and representatives of BLN. The interviews were 0.5–1.5 h long and were open, focused on the two main questions central to this paper but leaving the representatives of BLN much room to discuss what they wanted to share about the partnership. Informal email exchanges and telephone calls and exchanges before and after the focus group meetings provided additional information. Focus group sessions aim at collecting data through group interaction regarding a specific subject determined by the researcher. Focus group sessions often result in a richer and better understanding of a subject than individual interviews because the interaction between differing perspectives helps in articulating and reflecting upon individual perceptions and connecting these viewpoints with other perspectives (Runhaar et al., 2016). A potential disadvantage is that group expression may interfere with individual expression and may promote ‘groupthink’. Our focus group sessions were organised in a similar way in five different regions where many members of the partnership were located, in order to facilitate their participation. In each focus group session 5–8 farmers participated, which allowed for sufficient interaction. A total of 36 farmers participated (representing over a quarter of all farmers in the partnership), in addition to 1–2 representatives from BLN. The sessions were organised in cooperation with the BLN representatives and hosted by one of the participating farmers. The sessions lasted 2–2.5 h each. They were moderated by an experienced researcher and a second researcher took notes.

3.1. Characterising partnerships

In order to characterise the partnership in terms of the features described in the Theory Section (see Section 2.1) we analysed literature and online information about the network in order to characterise objectives and participants, conducted interviews with representatives of BLN in order to identify their motives and the resources they bring in and used the focus group sessions to ask farmers why they had joined the partnership and what resources they bring in.

3.2. Achievements of partnerships and success factors

We used the theoretical functions of partnerships as a starting point. We merged the functions of meta governance and improving participation because they both relate to the ‘system’ in which farmers participate. This function was operationalised in terms of more attention and rewarding for meadow bird protection by other companies in dairy value chains and by policy-makers and politicians (e.g. by revising AES).

The actual performance of the partnership in terms of the functions was based on the perceptions of the farmers and BLN. During the five focus group sessions, farmers were asked to complete a short questionnaire individually about the performance of the partnership, not only to quantify the performance but also to prevent group think. The results were used to have a discussion about reasons for the perceived performance and the exploration of how the partnership could be reinforced. In the discussion about what explains the performance of the partnership, spontaneous answers were recorded and later translated in terms of the theoretical factors. We focused on questions over which

Table 1
Motives for farmers to join the partnership.

Motives	Frequency (n = 36)
Learning from other farmers and from meadow bird protection elsewhere; new insights; exchange experiences	23
Meet peers	7
Collectively contribute to the protection of meadow birds (other than learning and exchanging knowledge)	6
Show that the protection of meadow birds (and nature conservation in general) is also possible in mainstream (= non organic) dairy farming	5
Collectively put predation as a problem for the protection of meadow birds on the agenda	5
Dissatisfaction about ambition levels of farmer collectives, environmental cooperatives, nature reserve managers who farm out their land etc.	5
Lobby at the national level (partly in order to improve image)	5
Acquire funding for the protection of meadow birds via the market	4
Concerns about the continuation of AES and therefore show via the partnership what AES can yield and plea for more effective measures to be subsidised in AES schemes	4
Financial support to buy pumps for temporarily flooding fields	3
Influence BLN ('join the enemy')	2

farmers disagreed, as appeared from the questionnaires, in order to explore farmer-specific characteristics (organic farming or regular farming, age, intensive/extensive farming etc.) that could explain differences in perceived performance. The perceived performance of the partnership by BLN representatives was discussed during various in-depth interviews (VBN/BLN, 2016–2017). See Supplementary material S1 for more information about the data collection.

4. Results

4.1. The partnership characterised

The partnership was initiated by BLN March 2010 by means of an advertorial in an agricultural newspaper aimed at farmers who actively protected meadow birds and who felt a need for support and cooperation. These farmers were asked to report themselves. The idea was to start cooperating with farmers on an individual basis; gradually the partnership is developing as a network in which farmers and BLN started cooperating more as a group (VBN/BLN, 2016–2017).

On its website the partnership describes the objective of the participating farmers as follows: “An economically healthy farm [combined with] the protection of meadow birds and landscape conservation. That is what these farmers aim for. Thanks to them we can enjoy the meadows rich of species” (www.redderijkeweide.nl; downloaded February 2017, translation by authors).

4.1.1. Partners

Three representatives from BLN are active in the partnership, next to 133 farmers. According to the representatives of BirdLife Netherlands the 36 farmers that participated in the focus group sessions are representative of the partnership as a whole in terms of agricultural intensity and in ambition level regarding meadow bird protection. Where possible we compared the results of our focus groups with the earlier survey of the network in order to verify the representativeness of our sample. The farmers in our sample and in the partnership in general however are not representative of the 17,000 Dutch dairy farmers. 86% out of the 36 farmers participates in public AES (against some 20% nationally; Runhaar et al., 2017). The 36 farmers are diverse in farm size (number of hectares and cows) and regionally located in the Western and Northern regions of the Netherlands. More than 80% of these farmers is specialised dairy farmer and their herd size is more or less comparable to the Dutch average. They are however on average less intensive in terms of number of cows per hectare. Almost no farmers from the sandy soils in the Southern and Eastern parts of the Netherlands, where meadow birds densities are much lower or absent, are participating in the partnership. A relatively large share is organic (about one third) compared to the rest of the Netherlands (less than 2%; Agrimatie, 2015).

The churn rate (share of farmers who discontinue their membership of the partnership) is low. At the same time not all farmers are equally

actively engaged in the partnership (VBN/BLN, 2016–2017).

4.1.2. Motives of partners to join the partnership

BLN initiated the partnership for a number of reasons (VBN/BLN, 2016–2017). A first reason was to provide a platform to share knowledge and good practices between farmers and between farmers and BLN, respectively. A second reason was to provide stimulating examples for other farmers (showcases). A third reason was to show to the outside world BLN was willing to cooperate with farmers (by that time the relationships between farmers and nature conservation NGOs were tense). A fourth reason was to organise the contacts with ‘meadow bird farmers’ in an efficient way (group wise instead of all on an individual basis to reduce (transaction) costs). A fifth and final reason was to effectively connect (potential) donors and meadow bird farmers for the funding of substantial complementary measures for meadow bird protection.

Table 1 shows the motives expressed by the farmers during the focus group sessions. The most often expressed motive was learning from other farmers, out of curiosity and a desire to learn new things. The diversity of other motives also stresses the heterogeneity of ‘meadow bird farmers’. Meeting peers was explicitly mentioned as a motive to join by 7 farmers; they stated that other dairy farmers in their region showed little respect for their efforts to protect meadow birds. One farmer expressed that other farmers in the neighbourhood “thought he was crazy” because he mowed his grasslands part by part in order not to disturb or kill breeding meadow birds and their chicks. Another farmer stated that by participating in the partnership he felt no longer ‘isolated’. Many farmers experienced (increasing) predation (of eggs and chicks), particularly by foxes, as a problem for meadow bird populations on their fields (see also Kentie et al., 2015). They were frustrated that, despite their efforts, few chicks survived. Raising awareness and putting this issue on the agenda (including BLN’s agenda) was an important motive for them to join the partnership or to continue their participation in it. Other motives are more externally oriented: show that meadow bird protection can be effective, that AES needs to be continued, that according to some farmers from the partnership nature conservation and modern farming can be combined etc. More generally, the partnership was seen as a way to communicate to the outside world that farmers are not always the ‘bad guys’; during the focus group sessions various farmers expressed that they felt continuously blamed for the decline in meadow birds in agricultural landscapes. Acquiring funding was mentioned by only a few farmers although an earlier survey of the farmers in the partnership revealed that acquiring funding via the network rather than alone was considered a (very) important function of the partnership (VBN/BLN, 2014).

4.1.3. Functions of the partnership

The partnership functions at two levels: as a group (farmers and BLN) and between individual farmers and representatives of BLN. The partnership also provides a pool of farmers to start projects. These

activities are not part of the partnership but can be an important spin-off (and vice versa). In terms of the theoretical functions of partnerships the objectives can be specified as follows (VBN/BLN, 2016–2017):

- **Agenda-setting:** by means of active communication about the ‘meadow bird farmers’ via BLN media (magazine, website, social media) and via public media (e.g. television), BLN tries to raise awareness among its members (citizens) and the general public about the declining meadow bird population and the role that motivated farmers can play in preserving and restoring the populations. By presenting activities of some farmers from the partnership as ‘best practices’ BLN also aims to set an inspiring example for other farmers. It is also meant as a sign of recognition for, and commitment to, these farmers (and an incentive to continue protecting meadow birds in their fields);
- **Policy development:** occasionally BLN and individual farmers from the partnership collaborate in the development of company policies and plans.² The partnership does not explicitly aim to influence public policy, e.g. AES; BLN aims to do so but separately from the partnership (farmers in the partnership however do inform BLN about problems they encounter in AES which BLN uses in its lobby);
- **Implementation:** support farmers protecting meadow birds by recognising their efforts; supplying them collectively with knowledge from scientific research (learning); enable farmers to share their experiences and knowledge; and finding financial resources in order to cover the costs for measures such as solar pumps for temporarily wetting parts of the field for foraging birds (since 2010 some €200,000 was acquired; VBN/BLN, 2016–2017);
- **Meta governance/improving participation:** BLN aims to contribute to creating a market for ‘meadow bird dairy products’ in order to create a business model for farmers (cf. Kruijssen et al., 2009). Instruments include lobby at dairy processors, supermarkets and other companies and campaigns in order to raise awareness and a demand among consumers. As a result, several supermarkets have started selling ‘meadow bird-friendly dairy’ (see www.redderijkeweide.nl). Although these activities partly take place outside the partnership with farmers; working with these farmers has provided BLN more insight into the dairy value chain which contributed to more effective lobby (VBN/BLN, 2016–2017). BLN tries to influence the dairy ‘system’ also in other ways (e.g. political lobby, lobby at agricultural education programmes); again these activities largely take place next to the partnership.

4.1.4. Resources that the partners bring in

Although the representatives of BLN and the farmers are on equal footing, BLN has a leading role in the network. BLN contributes to the network by bringing farmers together; organising meetings (covering travel and hosting costs); knowledge dissemination and exchange; acquisition of financial resources; media attention; and contacts with external actors (policy-makers and politicians; companies; its members etc.). Farmers commit themselves to protecting meadow birds on their fields (which helps in realising BLN’s objectives); sharing knowledge and experiences; and informing BLN about the barriers they face when continuing and reinforcing their efforts to protect meadow birds (which BLN can use in its lobby activities). BLN perceives that the cooperation with farmers and the knowledge obtained have contributed to the legitimacy of BLN during contacts with other companies in the dairy value chain (VBN/BLN, 2016–2017). Farmers also felt that cooperating with BLN added to their legitimacy: they felt they were taken more

seriously by other stakeholders.

4.1.5. Rules of the partnership

Participation in the partnership is voluntary and based on equivalence of participants. There are few entry barriers. As an entry requirement, meadow birds need to be present on farmers’ fields. BLN also would like to allow only those farmers who actively protect these birds. As a proxy indicator participating farmers are therefore requested to report numbers of nesting birds. A survey in 2014 revealed that only a minority of farmers would agree with stricter entry requirements (VBN/BLN, 2014). During one focus group session farmers discussed about allowing more farmers to participate in the partnership. One farmer observed that many other farmers in his region actively protected meadow birds but were not a member of the partnership. In his view, including them would mean a larger network and hence potentially more influence on the outside world. Another farmer disagreed and wanted to limit the partnership to intrinsically motivated farmers who share a particular ambition level regarding meadow bird protection. Similar arguments were uttered during other focus group sessions. The perceived optimal size of the network and ideal profile of participants hence seems to depend in part on what participating farmers want to achieve with the partnership. At a more abstract level, the disagreement about entry requirements reflects a trade-off between partnership effectiveness and inclusion of many farmers that is also discussed for other environmental partnerships (e.g. Meadowcroft, 2007).

4.2. Performance of the partnership

4.2.1. Agenda-setting and raising awareness

Fig. 2 shows that a large share of the farmers are of the opinion that the partnership contributes to raising awareness among other farmers about (the need for) the protection of meadow birds, although the perceived degree is limited or small but important. BLN has a similar perception (VBN/BLN, 2016–2017). In contrast, a majority of farmers feel the partnership has a large contribution to raising awareness among citizens (see Fig. 2). BLN regularly presents farmers from the partnership examples of in the national and regional media and agrees with the farmers that this has a (large) impact on citizens’ awareness about (the need for) meadow bird protection (VBN/BLN, 2016–2017).

During the focus group sessions we asked which topics citizens should become more aware of. Various farmers indicated that ‘an honest picture’ should be provided about the situation the meadow bird population is in. Farmers often feel blamed for the decline in meadow birds because of changing farming practices (scale enlargement and intensification of production). However, many of the farmers in the partnership still operate in a relatively extensive way. In addition, farmers reason that the role of predation is often neglected or set aside, also for strategic reasons: some farmers stated that nature conservation NGOs (including BLN) do not feel comfortable addressing this theme. Predation has become an important factor explaining farmland bird decline (Teunissen et al., 2008). The focus group sessions revealed that BLN and part of the farmers debate about the causes of the ongoing decline in meadow birds (also on many of the fields of participating farmers); farmers tended to point to predation whereas BLN considered the changing agricultural landscape due to agricultural intensification as the main cause of the decline in meadow birds. BLN struggled with the issue of predation. Being a nature conservation NGO with a large membership of citizens who love not only farmland birds but also other birds and animals, was reluctant to accept culling of predators as a measure to protect meadow birds (cf. Van Huijstee et al., 2011). However, BLN has recognised the issue and for instance has been organising expert workshops on this issue to investigate (new) ways to deal with increased predation. The different perceptions on the role of predation and on culling may be related to the interests and positions of the partners: for some farmers it may be easier to point to external

² An example is the support for an organic farmer who has transformed his farm in order to optimise the protection of meadow birds and who started producing and selling cheese that was branded as ‘meadow bird cheese’ as a business model to finance his conservation efforts. A similar initiative of 12 more mainstream dairy farmers, a dairy processor and a distribution company to produce a series of ‘meadow bird friendly’ dairy products (‘Weideweelde’) was also supported.

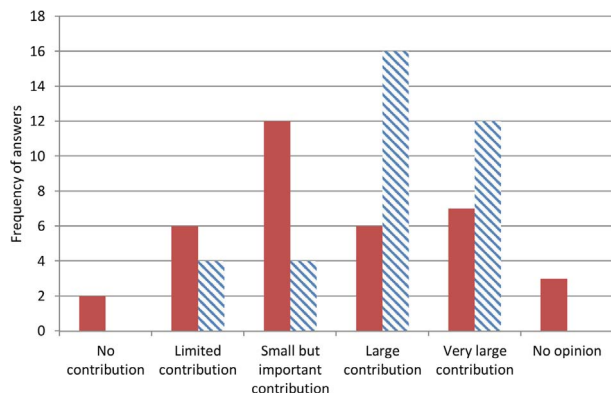


Fig. 2. Perceived contribution of the partnership to awareness about meadow bird protection (e.g. via the website) among farmers outside the partnership (solid fill) and among citizens (pattern fill); n = 36.

factors than to changing farming practices, whereas BLN has to acknowledge that large part of its members is opposed to culling wildlife. Other issues that should be communicated to citizens according to the farmers are trends in meadow birds in the nature reserves (also there improvements can be made) and that farming can be combined with nature conservation (see Table 1).

4.2.2. Policy development (at farm level)

In depth interviews with representatives of BLN learned us that only limited time and resources are spent on this function. We therefore did not explicitly discuss this function during the focus group sessions. Most of the efforts of the partnership are spent on communication, organising meetings and publicity. Supporting individual farmers in developing plans to substantially transform their operations (e.g. by producing ‘meadow bird friendly’ dairy products) is not a collaborative activity of the partnership and mainly a spin-off of partnership activities (VBN/BLN, 2016–2017).

4.2.3. Implementation

For almost two thirds of the farmers, access to knowledge was an important motive to join the partnership (see Table 1). The partnership seems to fulfil this function, although the farmer respondents differ in the perceived extent to which their knowledge about the protection of meadow birds has increased due to the network and the majority of the respondents states the partnership has provided either a limited or a small but important contribution to their knowledge about protecting meadow birds (see Supplementary material S2). Farmers nevertheless seem satisfied about this function of the network as it would help ‘fine-tuning’ conservation efforts. This finding is consistent with the survey in 2014 which found that farmers appreciated the network meetings organised by BLN aimed knowledge exchange and dissemination and gave these meetings an average mark of 7.6 on a 10-point scale (VBN/BLN, 2014).

The participating farmers are all involved in some kind of meadow bird management which could explain their perceived knowledge. Knowledge is also provided by other organisations and networks, such as the farmer collectives that bear responsibility for implementing AES since 2016. The focus group sessions suggest that most farmers feel their basic knowledge about meadow bird protection is of sufficient quality, but that they like to see what other farmers do, out of curiosity and to be inspired to experiment with other conservation measures. The sessions also revealed specific themes farmers were interested in and about which they wanted to know more.

About two-third of our respondents indicates that the partnership played a limited or no role in intensifying their conservation efforts by implementing more substantial measures (see Supplementary material S3). Still, it was brought forward during the focus group sessions that

the meetings with BLN and other farmers were considered to be stimulating and motivating in a number of ways. One, the meetings motivated some farmers to continue implementing conservation measures even if few chicks survived because of predation amongst other things. Two, interacting with BLN yielded new ideas and stimulated other farmers to experiment with conservation measures they had not implemented yet. Another explanation was more practical: the partnership helped acquiring funding for e.g. solar pumps for establishing wetlands. The partnership has not played a large role in terms of helping farmers to dedicate a larger share of their fields to the protection of meadow birds (again, see Supplementary material S3). For BLN this has not been an explicit objective (VBN/BLN, 2016–2017).

In general we conclude that in the perceptions of the participating farmers, the partnership has enabled them to improve their conservation efforts; this picture also emerged from the 2014 survey.

4.2.4. Transforming the ‘dairy system’

Although more attention for and recognition of meadow bird protection by other companies in the dairy value chain was not a main motive for farmers to join the partnership (see Table 1), and although BLN considers efforts to contribute to transforming the dairy system to be mostly take place outside the partnership, a large majority of farmers is of the opinion that the partnership has a major contribution to this function (see Fig. 3). The network provides a group for interested and motivated farmers to be involved in new value chain related activities. If both BLN and individual farmers start-up such activities, the partnership is no longer explicitly involved. During the focus group sessions, multiple farmers stated to expect that the supply and demand for ‘meadow bird dairy products’ that were recently introduced would increase in the near future, in part due to the activities of BLN in collaboration with farmers.

We explain the difference in perception about this function of the partnership in the way the partnership is framed by the partners involved: for many farmers, all of their interactions with BLN are part of the partnership whereas BLN reasons from a programmatic perspective in which activities with farmers are either part of the partnership with the 130 farmers, or part of other activities such as public affairs of ‘food’ projects with farmers located in areas with high meadow bird densities.

Another way to promote a change in the system in favour of meadow bird protection is by political lobby and attempts to influence policy-making (including AES and the EU Common Agricultural Policy). Again most farmers feel the partnership plays an important role here (see Fig. 3). According to the farmers, politicians and policy-makers should enable and support efforts to reduce predation, reduce bureaucracy, enable more flexibility in AES for more effective nature conservation and enlarge the budget for AES. They expect BLN to express their opinion in its lobby. For BLN, lobbying on behalf of the

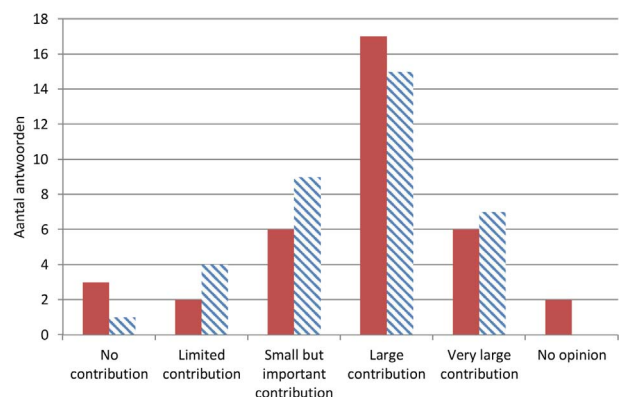


Fig. 3. Perceived contribution of the partnership to receiving more attention to, and recognition and rewarding for, meadow bird protection in the dairy value chain (solid fill) and from politicians and policy-makers (pattern fill); n = 36.

partnership was and is not an explicit objective.

In the 2014 survey a minority of 35% of the respondents felt the political lobby by BLN (which is in part inspired by what BLN has learned from partnering farmers) had yielded ‘a good result’ (VBN/BLN, 2014). Fig. 3 suggests this has improved, which could be related to a growing societal interest in meadow birds (of which the number of newspapers is indicative; see Supplementary material S4). According to BLN, part of the farmers have unrealistic expectations about what BLN can achieve in its lobby (VBN/BLN, 2016–2017).

According to BLN, having convinced two dairy processors to introduce ‘meadow bird dairy’ in the market would not have been possible without the cooperation with the farmers in the partnership, because of which BLN had obtained knowledge about the opportunities and the challenges of combining dairy farming and the protection of meadow birds (VBN/BLN, 2016–2017).

4.3. Explaining the performance of the partnership

In farmers’ perceptions, the partnership has three main achievements: a large contribution to raising awareness among citizens about the need for the protection of meadow birds by farmers and to attention and recognition from politicians and policy-makers (i.e. a large external influence); a modest contribution to intensifying farmers’ efforts to protect meadow birds; and a modest contribution to knowledge of participating farmers. These achievements do not directly contribute to the restoration of the meadow bird population and can be criticised for that reason, but do provide some favourable conditions and in ways that perhaps other governance arrangements cannot (compare: Vollmer-Sanders et al., 2016). Table 2 provides an overview of explanations that emerged from the focus group sessions, which we subsequently classified according to the theoretical ‘success factors’.

An important success factor for the *external function* of the partnership (column 2) is the alignment of interests and the complementarity of the partners. By cooperating, farmers feel they have more influence than by operating on their own. The cooperation with BLN was felt to reinforce the influence of the farmers because of its expertise and political influence. Some farmers stated that they had entered the partnership also in order to influence BLN; in their perception BLN and other nature conservation NGOs predominantly put the blame of the decline in meadow birds on farmers and they wanted

to change this picture. For BLN the cooperation with the farmers is felt to increase its legitimacy vis-à-vis other companies in the dairy sector but also in debates about e.g. AES because of the visible engagement with farmers and the knowledge obtained (e.g. about problems farmers experience when participating in AES) (VBN/BLN, 2016–2017). Apparently the group of farmers participating in the partnership is large enough to have the external influence it has in the perception of the farmers, even though their portion is less than 1% of all dairy farmers. This requires further research though. On the other hand, regarding the external function of the network, farmers and BLN seem to have a partly different perception and different expectations. Streamlining this may be important for the continuation of the partnership. The partners are complementary but not dependent on each other for realising their main objectives. Entry and exit barriers are low. This reduces the risk of “agency capture”, i.e. one partner gaining dominance over another, which may go at the expense of that partner (Krause, 2014; see Van Huijstee et al., 2011, for an overview of this other strategic challenges of NGO-company partnerships). The flipside of the autonomy of the partners, also in the light of the low entry requirements, is that there is scope for ‘free riding’ at the side of partners (Prakash and Potoski, 2007).

Regarding the modest contribution of the partnership to *meadow birds conservation* (column 3) an important success factor is that by meeting peers, farmers feel motivated to continue and intensify their efforts. Being member of the partnership is also something farmers are proud of (VBN/BLN, 2014).

The modest contribution of the partnership to farmers’ *knowledge of meadow bird protection* (column 4) can be explained by the strategic choice of BLN to cooperate with farmers who already actively contributed to meadow bird protection and thus have some basic knowledge. Partnering with farmers who do not actively protect meadow birds might have performed better in terms of contributing to farmers’ knowledge about (the need for) meadow bird protection, even though we expect these farmers to be less motivated to partner with BLN.

A tension may exist between the above success factors. A larger network may mean more external influence, but at the same time go at the expense of the latter, ‘internal’ function, particularly when new members have lower ambition levels. In addition, the modest contribution to meadow bird conservation we associate with the low entry requirements. This suggests there is a trade-off between the

Table 2
Success factors of the partnership’s achievements.

Theoretical success factors ↓	Perceived achievements		
	1: Large external influence	2: Modest contribution to intensifying conservation	3: Modest contribution to knowledge
<i>Initial situation</i>	<ul style="list-style-type: none"> ● Shared interests to cooperate ● Aim to influence BLN (‘join the enemy’) 		<ul style="list-style-type: none"> ● Curiosity to learn from others, to improve and to experiment ● Perceived sufficient ‘basic knowledge’ and experience
<i>Characteristics of the partners</i>	<ul style="list-style-type: none"> ● Complementarity of the partners ● Shared interests 	<ul style="list-style-type: none"> ● Some older farmers have no successor (yet) 	<ul style="list-style-type: none"> ● Curiosity to learn from others, to improve and to experiment ● Perceived sufficient ‘basic knowledge’ and experience
<i>Characteristics of the partnership</i>	<ul style="list-style-type: none"> ● A group of farmers is felt to be more visible and influential than individual farmers 	<ul style="list-style-type: none"> ● Meeting peers and a feeling of solidarity motivates ● Low entry requirements ● A desire to meet peers 	<ul style="list-style-type: none"> ● Low frequency of meetings ● Low entry requirements
<i>Intrinsic and external motivations to participate</i>	<ul style="list-style-type: none"> ● Intrinsic motivation to protect meadow birds ● Farmers feel blamed for the decline in meadow birds 		<ul style="list-style-type: none"> ● Curiosity to learn from others, to experiment
<i>Enabling and constraining factors</i>	<ul style="list-style-type: none"> ● More societal interest in (the decline in) meadow birds ● Legitimacy of farmers and BLN in the eyes of companies in agri-food chains 	<ul style="list-style-type: none"> ● No successor ● Difficulties to cover the costs of meadow bird protection ● Ongoing pressure from other companies in the dairy value chain or from banks to intensify 	<ul style="list-style-type: none"> ● Practical barriers to attend meetings (e.g. distance, too busy etc.; VBN/BLN, 2014)

Note: –not mentioned or not relevant.

partnership's effectiveness and inclusion (see also Section 4.1.5).

5. Discussion and conclusions

This paper demonstrates that NGO-farmer partnerships are a specific category of governance arrangements for agrobiodiversity that fulfil functions different from, but also complementary to, those of more established arrangements such as AES. The partnership does not directly contribute to the protection of meadow birds but provides some favourable conditions such as creating awareness among citizens, politicians and companies about the need for the protection of meadow birds and what farmers can and cannot do and providing a platform where farmers can meet and motivate each other. These can also be considered as important functions of a partnership (cf. Vollmer-Sanders et al., 2016).

We tried to triangulate our data sources by combining the results of an earlier survey from 2014 and desk research with interviews, a brief questionnaire and five focus group sessions. Nevertheless there are some methodological limitations. An important one is that the achievements of the partnership were measured by means of self-assessments. We recommend that future research assesses the achievements of the partnership from the perception of the outside world (i.e. citizens, other companies in agri-food chains, politicians and policy-makers and other stakeholders) and that an attempt is made to assess the ecological impacts of the partnership. A second and more substantive suggestion for future research is to examine more in depth how this and similar partnerships compare to other governance arrangements: how do they co-exist, do they fulfil functions other governance arrangements do not fulfil, do reinforce or contradict each other? And what does that imply for the ultimate goal: enhancing species abundance and diversity in agricultural landscapes? A third and related suggestion for future research is to explore how the partnership can contribute to the meadow bird protection at the *regional* level next to, or instead of, the farm-level. The regional level is the adequate level for meadow bird protection from an ecological perspective and the current AES scheme explicitly stimulates farmers to form collectives and develop regional plans for meadow bird protection. Yet how non-participating farmers can be motivated to participate in AES or other governance arrangements and how cooperation among farmers can be stimulated is a new field of research (Westerink et al., 2017; Riley et al., 2018). What role can partnership between BLN and farmers, for instance organised at the regional level, play in this respect? And what is needed from other governance arrangements?

This paper does not only contribute to literature about governance of agrobiodiversity, but also to literature on partnerships for sustainable development. The partnership we analysed differs from other those normally discussed in this literature (see Section 2), because of the absence of public actors, the involvement of farmers as a specific company category and because of the engagement of a relatively large number of partnering companies (in this case: farmers). The motivations of BLN to initiate this partnership and for farmers to be involved are similar to those mentioned in the literature, but for farmers our analysis yields two additional motives: meeting peers and inform and stimulate each other. These motivations or functions may be typical for 'large n' partnerships, as opposed to partnerships involving a smaller number of NGOs and companies (compare: Visseren-Hamakers, 2013). Whereas this requires further research, this paper supports the findings from other researchers that partnerships not only form a governance arrangement that differs from other governance arrangements, but that it also forms a heterogeneous category itself.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.landusepol.2018.01.033>.

References

- Agrimatie, 2015. Less than 2% of Dairy Cows Are Organic. available from. <http://www.agrimatie.nl/SectorResultaat.aspx?subpubID=2290§orID=2245&themaID=2267>.
- Andonova, L.B., Levy, M.A., 2003. Franchising governance: making sense of the Johannesburg type II partnerships through orchestration. *Rev. Int. Organ.* 5, 315–344.
- Austin, J.E., 2007. Sustainability through partnering: conceptualizing partnerships between businesses and NGOs. In: Glasbergen, P., Biermann, F., Mol, A.P.J. (Eds.), *Partnerships, Governance and Sustainable Development. Reflections on Theory and Practice*. Edward Elgar, Cheltenham, UK; Northampton USA, pp. 49–67.
- Batáry, P., Báldi, A., Sárospataki, M., et al., 2010. Effect of conservation management on bees and insect-pollinated grassland plant communities in three European countries. *Agric. Ecosyst. Environ.* 136 (1–2), 35–39.
- Batáry, P., Dicks, L.V., Kleijn, D., Sutherland, W.J., 2015. The role of agri-environment schemes in conservation and environmental management. *Conserv. Biol.* 29 (4), 1006–1016.
- Bitzer, V., Glasbergen, P., 2015. Business-NGO partnerships in global value chains: part of the solution or part of the problem of sustainable change? *Curr. Opin. Environ. Sustain.* 12, 35–40.
- Bitzer, V., Glasbergen, P., Arts, B., 2013. Exploring the potential of intersectoral partnerships to improve the position of farmers in global agrifood chains: findings from the coffee sector in Peru. *Agric. Hum. Values* 30, 5–20.
- Bryson, J.M., Crosby, B.C., Middleton Stone, M., 2006. The design and implementation of cross-sector collaborations: propositions from the literature. *Public Adm. Rev.* 66, 44–55.
- CBS, 2015. Weidevogels in duikvlucht. zie www.cbs.nl/nl-nl/nieuws/2015/32/weidevogels-in-duikvlucht.
- Drissen, P.P.J., Dieperink, C., van Laerhoven, F., Runhaar, H.A.C., Vermeulen, W.J.V., 2012. Towards a conceptual framework for the study of shifts in environmental governance – experiences from the Netherlands. *Environ. Policy Gov.* 22 (3), 143–160.
- EEA, 2015a. SOER 2015 — The European Environment — State and Outlook 2015. A Comprehensive Assessment of the European Environment's State, Trends and Prospects, in a Global Context. European Environmental Agency, Copenhagen.
- EEA, 2015b. State of Nature in EU. Results from Reporting Under the Nature Directives 2007–2012. EEA Technical Report No2/2015. European Environment Agency, Luxembourg.
- Gamero, A., Brotons, L., Brunner, A., Foppen, R., Fornasari, L., Gregory, R.D., Herrando, S., Hořák, D., Jiguet, F., Kmecl, P., Lehikoinen, A., Å, Lindström, Paquet, J.Y., Reif, J., Sirkkiä, P.M., Škorpilová, J., van Strien, A., Szép, T., Telenský, T., Teufelbauer, N., Trautmann, S., van Turnhout, C.A.M., Vermouzek, Z., Vikström, T., Vofříšek, P., 2017. Tracking progress towards EU biodiversity strategy targets: EU policy effects in preserving its common farmland birds. *Conserv. Lett.* 10 (4), 395–402.
- Glasbergen, P., Biermann, F., Mol, A. (Eds.), 2007. *Partnerships, Governance, and Sustainable Development: Reflections on Theory and Practice*. Edward Elgar, Cheltenham, UK and Northampton, MA.
- Glasbergen, P., 2007. Setting the scene: the partnership paradigm in the making. In: Glasbergen, P., Biermann, F., Mol, A. (Eds.), *Partnerships, Governance, and Sustainable Development: Reflections on Theory and Practice*. Edward Elgar, Cheltenham, UK and Northampton, MA, pp. 1–28.
- Grüebler, M.U., Schuler, H., Horch, P., Spaar, R., 2012. The effectiveness of conservation measures to enhance nest survival in a meadow bird suffering from anthropogenic nest loss. *Biol. Conserv.* 146 (1), 197–203.
- Hysing, E., 2009. From government to governance? A comparison of environmental governing in Swedish forestry and transport. *Governance* 22 (4), 547–672.
- Kentie, R., Hooijmeijer, J.C.E.W., Trimbois, K.B., Groen, N.M., Piersma, T., 2013. Intensified agricultural use of grasslands reduces growth and survival of precocial shorebird chicks. *J. Appl. Ecol.* 50 (1), 243–251.
- Kentie, R., Both, C., Hooijmeijer, J.C.E.W., Piersma, T., 2014. Age-dependent dispersal and habitat choice in black-tailed godwits *Limosa limosa limosa* across a mosaic of traditional and modern grassland habitats. *J. Avian Biol.* 45 (4), 396–405.
- Kentie, R., Both, C., Hooijmeijer, J.C.E.W., Piersma, T., 2015. Management of modern agricultural landscapes increases nest predation rates in Black-tailed Godwits *Limosa limosa*. *Ibis* 157 (3), 614–625.
- Kleijn, D., Baquero, R.A., Clough, Y., et al., 2006. Mixed biodiversity benefits of agri-environment schemes in five European countries. *Ecol. Lett.* 9 (3), 243–254.
- Krause, T., 2014. A contingency framework on partnership risk. *Int. J. Public Sector Manage.* 27 (4), 317–333.
- Kruijssen, F., Keizer, M., Giuliani, A., 2009. Collective action for small-scale producers of agricultural biodiversity products. *Food Policy* 34 (1), 46–52.
- Meadowcroft, J., 2007. Democracy and accountability: the challenge for cross-sectoral partnerships. In: Glasbergen, P., Biermann, F., Mol, A. (Eds.), *Partnerships, Governance, and Sustainable Development: Reflections on Theory and Practice*. Edward Elgar, Cheltenham, UK and Northampton, MA, pp. 194–213.
- Ollerton, J., Erenler, H., Edwards, M., Crockett, R., 2014. Extinctions of aculeate pollinators in Britain and the role of large-scale agricultural changes. *Science* 346 (6215), 1360–1362.

- Polman, N.L., Slangen, L., van Huylenbroeck, G., 2011. Collective approaches to agri-environmental management. In: Oskam, A., Silvis, J. (Eds.), *EU Policy for Agriculture, Food and Rural Areas*. Wageningen Academic Publishers, Wageningen, the Netherlands, pp. 363–368.
- Polman, N.B.P., 2002. *Institutional Economics Analysis of Contractual Arrangements; Managing Wildlife and Landscape on Dutch Farms*. Wageningen Universiteit, Wageningen the Netherlands (PhD thesis).
- Prakash, A., Potoski, M., 2007. Collective action through voluntary environmental programs: a club theory perspective. *Policy Stud. J.* 35 (4), 773–792.
- Riley, M., Sangster, H., Smith, H., Chiverrell, R., Boyle, J., 2018. Will farmers work together for conservation? The potential limits of farmers' cooperation in agri-environment measures. *Land Use Policy* 70, 635–646.
- Runhaar, H., Uittenbroek, C., van Rijswijk, M., Mees, H., Driessen, P., Gilissen, H.K., 2016. Prepared for climate change? A method for the ex-ante assessment of formal responsibilities for climate adaptation in specific sectors. *Reg. Environ. Change* 16 (5), 1389–1400.
- Runhaar, H.A.C., Melman, Th.C.P., Boonstra, F.G., Erisman, J.W., Horlings, L.G., de Snoo, G.R., Termeer, C.J.A.M., Wassen, M.J., Westerink, J., Arts, B.J.M., 2017. Promoting nature conservation by Dutch farmers: a governance perspective. *Int. J. Agric. Sustain.* 15 (3), 264–281.
- Sanderson, F.J., Kucharz, M., Jobda, M., Donald, P.F., 2013. Impacts of agricultural intensification and abandonment on farmland birds in Poland following EU accession. *Agric. Ecosyst. Environ.* 168, 16–24.
- Stoate, C., Boatman, N.D., Borralho, R.J., Carvalho, C.R., De Snoo, G.R., Eden, P., 2001. Ecological impacts of arable intensification in Europe. *J. Environ. Manage.* 63 (4), 337–365.
- Taylor, B.M., 2010. Between argument and coercion: social coordination in rural environmental governance. *J. Rural Stud.* 26 (4), 383–393.
- Teunissen, W., Schekkerman, H., Willems, F., Majoor, F., 2008. Identifying predators of eggs and chicks of Lapwing *Vanellus vanellus* and Black-tailed Godwit *Limosa limosa* in the Netherlands and the importance of predation on wader reproductive output. *Ibis* 150 (Suppl. 1), 74–85.
- VBN/BLN, 2014. *Enquête weidevogelboerderijen*. In: *Presentation of the Results of a Survey Among the by Then 105 Farmers Participating in the Partnership for Meadow Bird Protection*. Zeist, BirdLife Netherlands.
- VBN/BLN (2016–2017), *Several Meetings with 2–4 Representatives of BirdLife Netherlands Between November 2016 and April 2017 in Which Knowledge about and Experiences with the Partnership were Exchanged*; VBN/BLN, Zeist.
- Van Amstel, M., de Neve, W., de Kraker, J., Glasbergen, P., 2007. Assessment of the potential of ecolabels to promote agrobiodiversity. *Ambio* 36 (7), 551–558.
- Van Huijstee, M.M., Francken, M., Leroy, P., 2007. Partnerships for sustainable development: a review of current literature. *Environ. Sci.* 4 (2), 75–89.
- Van Huijstee, M., Pollock, L., Glasbergen, P., Leroy, P., 2011. Challenges for NGOs partnering with corporations: WWF Netherlands and the environmental defense fund. *Environ. Values* 20 (1), 43–74.
- Visseren-Hamakers, I.J., 2013. Partnerships and sustainable development: the lessons learned from international biodiversity governance. *Environ. Policy Gov.* 23 (3), 145–160.
- Vollmer-Sanders, C., Allman, A., Busdeker, D., Moody, L.B., Stanley, W.G., 2016. Building partnerships to scale up conservation: 4R nutrient stewardship certification program in the lake erie watershed. *J. Great Lakes Res.* 42 (6), 1395–1402.
- Westerink, J., Jongeneel, R., Polman, N., Prager, K., Franks, J., Dupraz, P., Mettepenningen, E., 2017. Collaborative governance arrangements to deliver spatially coordinated agri-environmental management. *Land Use Policy* 69, 176–192.
- Whittingham, M.J., 2007. Will agri-environment schemes deliver substantial biodiversity gain, and if not why not? *J. Appl. Ecol.* 44 (1), 1–5.
- Wiggers, J.M.R.H., van Ruijven, J., Berendse, F., de Snoo, G.R., 2016. Effects of grass field margin management on food availability for Black-tailed Godwit chicks. *J. Nat. Conserv.* 29, 45–50.