

# LandscapePartners

The Contribution of Multi-stakeholder Partnerships to Sustainable Landscape Management

# Project Report May 2013





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#### 1 Introduction

Management of landscapes and nature conservation is undertaken both by individuals and by groups of individuals. This report compiles the results of the LandscapePartners project (June 2010 to May 2012). The focus of this research was on multi-stakeholder groups at local and sub-regional levels who aim for sustainable landscape management, involving a variety of land uses and interests.

The aim of the research was to improve our understanding of multi-stakeholder groups' contributions and to find ways to assess sustainable landscape management. Agri-environmental collaboratives in Germany and the Netherlands were studied as examples of groups, to investigate what they document, what indicators they use, and how they report their contributions. The resilience of these groups was also explored. Empirical research included interviews, an online survey, and analysis of the groups' annual reports and other documents.

The term 'agri-environmental collaboratives' is used throughout the report to refer to types of groups in both countries because they share many of the same characteristics (e.g. membership composition) and overall goals. In Germany, these groups are called *Landschaftspflegeverbände* (Landcare groups) and there are more than 150 of them registered with the German Landcare Association (*Deutscher Verband für Landschaftspflege*). In the Netherlands, they are called *Agrarische Natuurverenigingen* (agricultural nature associations). Exact numbers are difficult to establish but there are about 150 of these groups in the Netherlands. The Dutch sample of groups has also been supplemented by the so-called *Landschapsbeheer* groups which are organisations at the provincial level (one in each of the 12 provinces) who organise volunteers' working days rather than having a membership of farmers and other land owners.

#### Note

This report was written to compile all project results that would be of interest to the agrienvironmental collaboratives and their umbrella organisations. Hence, there is only limited introduction on aim, structure, purpose and history of *Landschaftspflegeverbände* and *Agrarische Natuurverenigingen*. In addition to the information in this report, there are more specific findings in relation to each country available on the project website (see cover).

If you have any comments or amendments please email to katrin.prager@hutton.ac.uk.

<sup>&</sup>lt;sup>1</sup> Note that there are variations in each country regarding names of individual groups, e.g. Landschaftserhaltungsverband, Biologische Station, Agrarische Natuur- en Milieuvereniging.



#### 2 Methodology and data basis

**Interviews** were carried out with a total of 21 individuals from 17 local groups, 18 individuals from 16 umbrella organisations or people working as coordinators of a region (*Bundesland*, province), and 4 scientific experts from 2 organisations (see Annex 1). The approximate location of groups and coordinators interviewed is shown in Figure 1. In addition, to the face-to-face interviews, short phone interviews were carried out with three German Landschaftspflegeverbände and the state coordinator for Bayern. The report also draws on material collected for a Master thesis by Landmann (2011)<sup>2</sup>.

The **online survey** of German and Dutch agri-environmental collaboratives was carried out from July to November 2011 by contacting all groups either directly or through their umbrella organisation or regional coordinator. A total of 122 responses to the questionnaire were collected from chairmen, secretaries or other members of agri-environmental collaboratives, representing more than one third of the total population of approximately 300 groups (150 German and 150 Dutch groups). Of the total responses, 44 were from German groups and 78 from Dutch groups. The questionnaire included questions on group characteristics, their contribution to the three dimensions of sustainable landscape management, as well as the indicators that groups use to monitor, record and report on their activities and activities' impacts.

The **analysis of groups' annual reports** and other documents was carried out partially to provide a sound basis from which to develop the interview questions and the survey structure, and partially to analyse what indicators groups typically document. The results of reports from Dutch ANV are compiled in de Lijster and Prager (2012)<sup>3</sup>. The results of the reports from German Landschaftspflegeverbände were compiled by Heide and Prager (2012)<sup>4</sup>.

Additional interviews were carried out with six former advisors of the Farming and Wildlife Advisory Group (FWAG) to identify reasons for their demise. These results are not written up as yet but have influenced Chapter 6 – Resilience.

#### A note of caution on the interpretation of online survey results

- Note that all results only refer to the sample drawn from the total population. Extrapolating
  results to all agri-environmental cooperative is not possible as the sample might be biased
  due to the self-selection of survey respondents. We can only recognise general trends or
  tendencies.
- A survey is only a snapshot of one point in time and does not capture changes, with the exception that some respondents will 'average' their assessments or ranking. However, the time span they average across will vary between individuals hence are not comparable.

<sup>&</sup>lt;sup>2</sup> Landmann, Nils (2011): Landschaftspflegeverbände -Exemplarische Untersuchung zu Struktur, Aufgaben und Projekten (Georg-August-Universität Göttingen).

<sup>&</sup>lt;sup>3</sup> de Lijster E, Prager K. 2012. The Use of Indicators in Agri-environmental Management in the Netherlands. Indicators used by Dutch Agrarische Natuurverenigingen (ANVs) for Monitoring and Reporting their Activities. . The James Hutton Institute. Available: www.macaulay.ac.uk/LandscapePartners/publications.php.

<sup>&</sup>lt;sup>4</sup> Heide, J.; Prager, K. 2012. The Use of Indicators in Annual Reporting by German Landschaftspflegeverbände (LPV). An analysis of annual reports and similar documents. Available: www.macaulay.ac.uk/LandscapePartners/publications.php



- Important events (either positive or negative) will have a lasting memory effect and also influence assessments, e.g. of group 'health' or networks.
- Any individual only ever has a share of the total information. Therefore, if two different
  people fill in the questionnaire, their information will be correct from their point of view but
  would differ from another person's response. For example, one group member might not be
  aware of all the activities currently started so might claim that certain indicators are not
  used, or might not be aware of where and in which form data is stored.
- Two different members of the same group may fill in the questionnaire with strikingly different responses as observed on different occasions, leading to differences in:
  - the full name of the group (some use abbreviations or only parts of the name)
  - o size of area (250/ 325 km<sup>2</sup>)
  - o number of members
  - year of foundation (1997/2000)

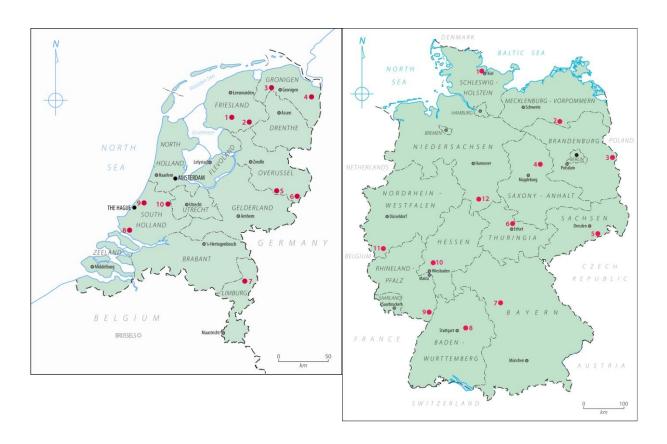


Figure 1: Map of the Netherlands and Germany with an approximate location of groups/interviewees



### 3 Characteristics of agri-environmental collaboratives

#### 3.1 Group age, size and membership

The idea of agri-environmental collaboratives set off to a slow start in the mid 1980s (Figure 2). In Germany, formation of groups was highest in the first half of the 1990s<sup>5</sup>. This coincided with the unification of Germany when the idea of *Landschaftspflegeverbände* (also called Landcare groups) was spread from Bavaria into the five new German states and there was government funding available that supported the employment of fixed-term staff and nature conservation projects. The national umbrella organisation *Deutscher Verband für Landschaftspflege* (DVL) was founded in 1993 to support foundation initiatives of new groups. The establishment of Dutch groups peaked in the second half of the 1990s. This period was characterised by generous government funding as well as scientific interest and support for *Agrarische Natuurverenigingen* (ANVs). The provincial *Landschapsbeheer* organisations were founded in the 1970s and are not included in the graph.

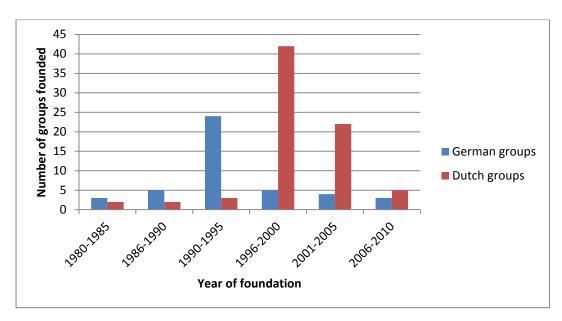


Figure 2: Year of foundation (n=120, 44 German, 76 Dutch groups)

German groups cover generally much larger areas. On average, the area a German group works in covers about 1200 km² (median 911 km²) and that of a Dutch group 132 km² (median 40 km²). At the core of this difference are the smaller holding sizes of many Dutch farms coupled with a higher density of farms and population. In addition, German groups typically refer to the district size even though they might not work on every part of it equally while Dutch groups might refer only to the land their members have entered into contracts or areas that volunteers work on regularly.

Groups who participated in the survey had between 7 and 2000 members, with an average of 150 members and a median of 50 members. A typical group size among German groups is up to 50 members whereas Dutch groups tend to be larger and commonly have 100-200 members.

<sup>&</sup>lt;sup>5</sup> See also data in a forthcoming paper by Jürgen Metzner: "Landschaftspflegeverbände – Markenzeichen des Kooperativen Naturschutzes in Deutschland. Strukturen, Arbeitsweise und Potenzial" in the German journal *Naturschutz und Landschaftspflege*.



The most strongly represented sector in the overall membership of German and Dutch groups is farming. This is not surprising as the German and Dutch rural landscapes are dominated by agricultural land use, and many groups have nature conservation on farms as a core objective or see farmers as the essential land managers for sustainable landscapes.

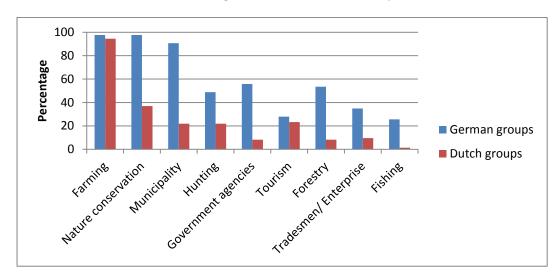


Figure 3: Share of groups who reported they have members from each sector (n=116, 43 German, 73 Dutch groups)

A fundamental characteristic of German groups is the requirement that in a Landcare group the interests of farming, nature conservation and the municipalities should be equally represented. This is required by the DVL because this composition has proven to be a prerequisite for successful landscape management. Figure 3, showing the proportion of groups which state their members are from the various sectors, illustrates that this is indeed the case in most groups. Around half of the groups also have members that belong to the forestry sector, hunting sector or a government agency.

In contrast, the membership situation in Dutch groups is less varied. There are no guidelines for group membership composition from umbrella organisations (overview of organisations see Annex 2). Farmers are members in most groups (95%). Well over a third of groups also have members with a nature conservation background. While the fishing sector is represented in a quarter of German groups, this is a rare case in Dutch groups.

A similar picture is generated with the question which sectors are most important or most strongly represented in the group. Although farming is the most important sector in most groups, there are also groups where nature conservation or municipal interests dominate. We rarely find groups where government agencies, tourism, tradespeople or hunters dominate.

Groups taking part in the survey were asked about the number of staff the group has. In particular for Dutch groups, this does not necessarily mean that the group is actually the employer but the people they work with are self-employed or freelancers. The interviews showed that often there was a long-lasting relationship between the group and the (predominantly part-time) coordinator.



The average in unpaid staff diverges between Dutch and German groups because some Dutch groups have provided number of volunteers they work with on an ad-hoc basis when working in the field or volunteers who help counting the birds.

Overall, the results indicate that Dutch groups work with part-time staff more than full time-staff. In German groups, full-time staff is more important for some groups. Interestingly, the median does not show differences between Dutch and German groups.

Table 1: Staff available to German and Dutch groups

		Paid full time	Paid part time	Volunteer/ unpaid staff	Other
German	average	1.54	1.57	5.97	2.42
groups	median	0	1	5	0
Dutch	average	0.11	1.97	17.5	0.8
groups	median	0	1	5	0

(German groups n=42; Dutch groups n= 68)

#### 3.2 Land ownership and protection status

Groups were asked about the ownership and tenure of the land where group activities are carried out. More than 90% work on land that is privately owned by individuals (Figure 4). This is followed by public or state-owned land. The share of groups that work on state or publicly owned land is more than twice as high in Germany (86%) than in the Netherlands (40%). It is less typical for Dutch groups to own or lease land.

Dutch groups very rarely work on trust-owned land whereas nearly a third of German groups undertake their activities on trust-owned land. This corresponds to the much higher share of trust-funded activities among German groups, suggesting that the cooperation between Landcare groups and trusts plays a much larger role in Germany. However, the interviews revealed that the translation of 'trust' into Dutch may have been misleading for survey respondents because a number of interviewees reported that their group cooperates with trust-like organisations.

There are also considerable differences between German and Dutch groups regarding the protection status of land they work on. The share of German groups working on land with Natura 2000 status is more than four times higher than among Dutch groups, and almost twice as large a share of German groups work on land with a nature or landscape protection status (Figure 5). This suggests that German groups have fully embraced their role as managers of such sites. Sites with a protection status are often in public or state ownership, which corresponds to the finding that more than 80% of German groups work on such land.



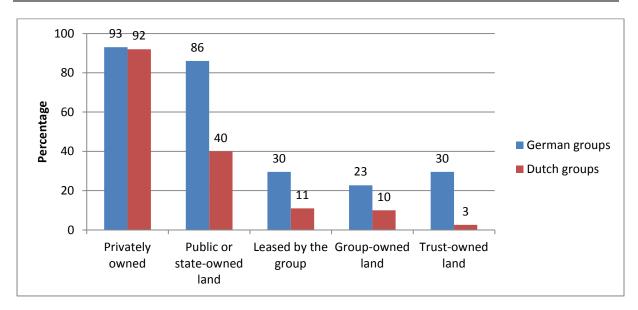


Figure 4: Land tenure and ownership (n=116, 43 German, 73 Dutch groups)

It should be noted that a similarly high share of groups in both countries works on land without a nature or landscape protection status which reflects their approach to manage 'everyday landscapes' as well as protected sites. The focus on these everyday landscapes is more pronounced among Dutch groups.

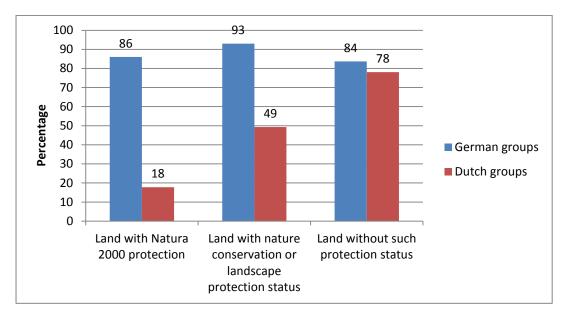


Figure 5: Protection status of the land that groups work on (n=116, 43 German, 73 Dutch groups)



#### 3.3 Funding sources

Overall, the dominant funding sources for German and Dutch groups are provincial funding schemes and membership fees. Co-funded agri-environment schemes are also an important funding source for group activities. About a quarter of the groups have benefited from LEADER funding during the last 5 years. Only few groups access EU LIFE funding or EU direct payments. Figure 6 shows the proportion of groups that access each particular funding source.

If we distinguish between German and Dutch groups, we find considerable differences. While 93% of the German groups rely on membership fees, it is only 73% among the Dutch groups. Instead, Dutch groups typically draw on provincial funding schemes (81%). Donations play an important role for German groups: 70% make use of them while it is only about a quarter of the Dutch groups. Funding accessed through agri-environment schemes plays a greater role for Dutch groups. Another remarkable difference is that only one Dutch group uses the funding available from a trust, whereas more than half of the German groups draw on this source. Again, the interviews suggest here that the Dutch translation of 'trust' precluded respondents from choosing this option, when actually there are trust-like arrangements in place for funding group activities. A quarter of German groups have benefited from lottery funding which plays only a marginal role in the Netherlands.

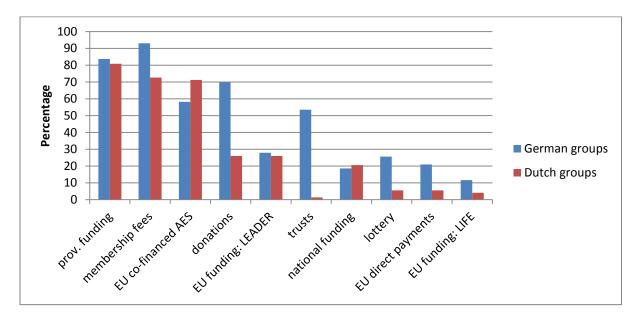


Figure 6: Range of funding sources utilised by agri-environmental collaboratives (n=116, 43 German, 73 Dutch groups. AES = Agri-environmental schemes)



#### 4 Sustainability contributions

The contributions that agri-environmental collaboratives make to landscape management are based on their activities. For example, if the group organises the management of grassland for threatened plant species, meadow birds and insects, this contributes to the environmental dimension of sustainable landscapes. If farmers derive an extra income from managing the cultural landscape (maintaining a scenic quality or producing juice from traditional orchards), this contributes to the economic dimension of sustainable landscapes.

Agri-environmental collaboratives are involved in a wide range of activities:

- Protecting species and habitats e.g. grazing/ grassland management, management of Natura 2000 areas
- Marketing of local products e.g. fruit from traditional orchards, local meat
- Supporting the implementation of regional plans and landscape plans e.g. by negotiating measures with landowners
- Supporting the implementation of the Water Framework Directive e.g. management of water courses
- Establishing and maintaining landscape elements (trees, hedgerows, ponds)
- Enhancing the landscape for tourist use e.g. establishing cycling and walking paths, producing maps of local visitor attractions
- Supporting farmers in entering agri-environmental schemes and cross-boundary management
- Organising and managing compensation measures e.g. for road, rail or building projects
- Awareness raising and environmental education, e.g. farm visits, guided tours, courses

Each group has its individual portfolio of activities reflecting the natural context, cultural specificities, the interests of its members, and which activities they manage to get funding for (or organise without funding).

To date, contributions of agri-environmental cooperatives have been captured in qualitative, descriptive ways (for example, Table 2) or as project outputs covering only one part of the group's activities. The activities of Dutch agri-environmental collaboratives have been researched to a larger extent than their German counterpart, with many studies having been undertaken by Centrum Landbouw en Milieu (CLM). These reports are available in Dutch only. German groups have been investigated by Güthler and Tschunko (1999), Prager and Vanclay, and Prager (2011). However,

<sup>&</sup>lt;sup>6</sup> Oerlemans, N., Guldemond, A., van Well, E. (2001) Agrarische Natuurverenigingen in Opkomst, Een eerste verkenning naar natuurbeheeractiviteiten van agrarische natuurverenigingen, Centrum Landbouw en Milieu Oerlemans, N., Hees, E., Guldemond, A. (2006) Agrarische Natuurverenigingen als gebiedspartij voor versterking natuur, landschap en plattelandsontwikkeling, Centrum Landbouw en Milieu Oerlemans, N., Guldemond, A., Visser, A. (2007) Meerwaarde agrarische natuurverenigingen voor de ecologische effectiviteit van Programma Beheer, Ecologische effectiviteit regelingen natuurbeheer: Achtergrondrapport 3, Centrum Landbouw en Milieu

<sup>&</sup>lt;sup>7</sup> Güthler W, Tschunko S. 1999. Landschaftspflegeverbände in Bayern: Zehn Jahre Erfahrungen in der Kooperation von Naturschutz, Landwirtschaft und Kommunalpolitik. Naturschutz und Landschaftsplanung 31 (3): 80-84.



these reports describe the group activities (what and how they do things) rather than the impact of group activities hence they say little about actual contributions to sustainable landscape management.

Table 2: Benefits of Dutch agri-environmental cooperatives (Franks and McGloin 2007)<sup>8</sup>

Benefits to farmers	<ul> <li>Lower agri-environment transaction costs</li> <li>Additional income streams (increased business profitability)</li> <li>Qualify for loans at preferential rates</li> <li>Access information more rapidly</li> <li>Enhanced living and working environment</li> <li>Improve the public's image of farming</li> </ul>
Benefits to government/ administration	<ul> <li>Lower transaction costs; better quality of applications</li> <li>Contact point for dissemination of information</li> <li>Increase engagement through local accessible networks and collective applications</li> <li>Initiate projects that require a critical mass of participants</li> <li>Form trust-building networks</li> <li>Undertake local monitoring</li> <li>Bridge between policy makers and farmers</li> </ul>
Environmental benefits	<ul> <li>Additional environmental projects</li> <li>More applications, higher participation rates in AES → increased environmental benefit</li> <li>Enhanced advice to farmers on ecological issues</li> </ul>
Rural economy benefits	<ul> <li>Agro-touristic infrastructure and attractions</li> <li>Developing and marketing of local foods</li> <li>Capacity for mobilising local actors and initiating alliances at regional level</li> </ul>

The overall contribution of agri-environmental collaboratives to sustainable landscape management is difficult to assess for several reasons:

- What is 'sustainable' is not well-defined, in theory or in practice;
- 'Sustainability' depends on the perspective the evaluator takes and what his/her interests are;
- There are issues relating to scale and aggregation (i.e. what is sustainable for a group or a region may not be sustainable for a country or all of Europe, and vice versa);

Prager K. 2011. Adaptives Management in Naturschutz und Landschaftspflege - Die Rolle von Gruppen und Verbänden in Europa. Natur und Landschaft 86 (8): 343 - 349.

Prager K, Vanclay F. 2010. Landcare in Australia and Germany: Comparing Structures and Policies for Community Engagement in Natural Resource Management. Ecological Management & Restoration 11 (3): 187-193.

<sup>&</sup>lt;sup>8</sup> Franks JR, McGloin A. 2007. Environmental co-operatives as instruments for delivering across-farm environmental and rural policy objectives: Lessons for the UK. Journal of Rural Studies 23 (4): 472-489.



- The boundaries of landscapes are fuzzy and rarely overlap with administrative boundaries, which many groups align to;
- Group activities and ultimately their contributions tend to focus on only one or two
  dimensions of sustainability (e.g. environmental, economic or social) due to the interests of
  group members and the nature of project funding; which is typically not holistic (in terms of
  objectives or assessment) but determines a considerable share of group activities.

In the face of these challenges in assessing contributions, this study collected information on the different dimensions of sustainable landscape management groups reported they contributed to, their main focus, what gaps there might be without groups, and what groups described as their main achievements. This promised to yield richer information than trying to collect data from all groups on specific activities, e.g. total trees planted in a given year.

# 4.1 Assessment of group contribution to sustainable landscape management

Agri-environmental collaboratives work towards a variety of objectives. They have different foci depending on their membership, their socio-economic and environmental context. The ultimate goal of all groups, however, is the sustainable management of their landscapes, including wildlife, water bodies, farms and other components, including humans and communities. When asked about their contribution to the environmental, social and economic dimension of sustainable landscape management, the clear majority identified a group contribution to the environmental dimension (Figure 7). About half of all the groups participating in the survey said they contribute to the economic dimension of sustainable landscape management.

It is difficult for practitioners to relate their activities to the conceptualisation of sustainability with its three dimensions. Therefore, examples were provided in the online questionnaire for what each dimension could comprise:

- Environmental dimension: species and habitat protection, pollution reduction, influencing consumption, awareness raising;
- Economic dimension: efficient use of resources, employment, diversification of income;
- Social dimension: cultural heritage, regional identity, social cohesion, accountable governance, education.

Only 40 % of German groups and 27% of Dutch groups said that they contribute to all three dimensions. This finding suggests that it is difficult even for a multi-stakeholder group to cover all aspects of sustainable management equally, or that among the sample there were groups with a clear focus in one area.



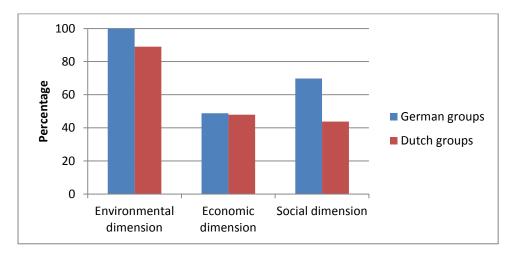


Figure 7: The percentage of agri-environmental groups who reported they contributed to different dimensions of sustainable landscape management (n=116, 43 German, 73 Dutch)

Groups were also asked whether they felt their contributions focussed on one <u>main</u> dimension of sustainable management. The responses showed that the majority of German groups identify the environmental dimension as their main area for contributions, and no group claimed their contributions to be mainly in the economic dimension (Figure 8). In the Netherlands, in contrast, more than a quarter of groups state that the economic dimension is their main focus. The social dimension is rarely the main area of contribution for groups. The interviews showed that this is likely related to the difficulty that groups found in defining what social sustainability actually is.

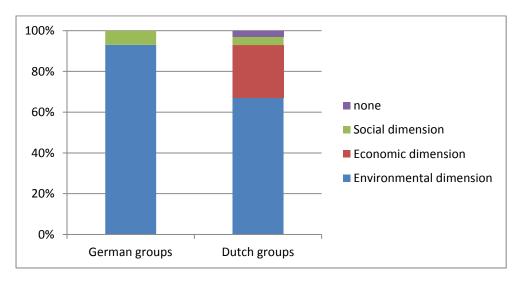


Figure 8: Main sustainability focus of German and Dutch groups

Note: 'None' means that 2 Dutch groups did not indicate their main focus. This may be because they did not have one and felt to contribute equally to all three dimensions, or because they did not answer this question.



#### 4.2 Would there be gaps without agri-environmental collaboratives?

#### 4.2.1 Gaps identified by Dutch groups and umbrella groups

When asked about the gaps that would be created for landscape management if *Agrarische Natuurverenigingen* (ANVs) and *Landschapsbeheer* were to stop working, interviewees could not identify very precisely what might be missing. Often, comments about gaps or achievements of the groups were made at other times during the interview rather than as an immediate response to the question. An associated issue is that the ecological impact of one group disappearing would not become immediately visible in the landscapes, and social and economic impacts would take a while to filter through. The link between the action of one agri-environmental collaborative and certain benefits (cause and effect) cannot easily be teased out.

The responses ranged from the view that perhaps not many people would notice if one or several groups were missing, to the view that quite a number of gaps would appear. The cautious remarks illustrate the difficulty in entangling what groups contribute to landscape and farm bird management from the share of other actors' activities. "When we look at the landscape it is really hard to say what would happen" (NL19)<sup>9</sup>, "It remains to be seen in those landscapes which have farm birds" (NL2), "When you are not there anymore you can think nobody can live without you but when you are gone all new things will happen" (NL23/24) or "I don't think the province is very interested" (NL22).

A few respondents suggested that there would be other ways of filling the gap left by one ANV ceasing to operate. Options included:

- A neighbouring ANV could take over the area and support farmers in the adjacent area
- Another organisation would have to fill the gap, either a new organisation (NL1), commercial organisations (NL14-16) ("but they don't have interest in the landscape or in the nature"), a farmer interest group such as LTO, or one of the nature conservation organisations
- "If we stop, something else is coming". Landscape and nature management "is not changing but it's going to cost us more money and the acceptance [of farmers] is worse" (NL20). This interviewee expresses the concern that the gap left without ANVs might be filled with regulation and enforcement by government.

On the other end of the continuum, there are strong advocates for agri-environmental collaboratives. They claim that there is no other organisation that brings farmers and nature together, "we do something that the government does not" (NL14-16). Gaps would be visible in the landscape and in species protection. "For the meadow birds it would be dramatic" (NL19), they would lose protection and there would be a return to individual action on farmbirds (NL22). Others claim "you would see it in the landscape", and emphasise that the impact would especially be felt in "the everyday used landscape" (NL3), less so in protected areas.

Several interviewees stressed the importance of the "local face", the role of the agri-environmental collaborative as the conduit between government agencies/ municipalities and local land managers

<sup>&</sup>lt;sup>9</sup> Coding for interviewees: 'NL' indicates a Dutch interviewee, 'DE' indicates a German interviewee.



(NL5/6). The accessibility and flexibility of a local contact person who is trusted by both parties is seen as crucial for the success of government programmes. Less farmers would sign up, farmers would receive less income through these schemes, and less would be done in the landscape. "Our biggest role is still to make the contact between people who live here, the farmers and the government and try to get them together to think about their landscape" (NL19). "We stimulate many landowners to do something good for nature or the landscape. If that stops, those projects will stop as well" (NL3). Meetings between farmers are important for new ideas to spread and getting "farmers excited about farmbirds" (NL21) and other wildlife and plants on their farm (NL17/18).

Several interviewees also described the conflicts between farming and conservation interests which led to the foundation of many ANVs. Without them, the situation might return to "more fighting and less talking" (NL19). Overall, agri-environmental collaboratives enhance the communication between all relevant stakeholders in landscape management, and some recognise this as a crucial gap that would occur without them.

One interviewee summarised the role of the ANV comprehensively: "The farmers and the government get a lot of service from us. Because the government just comes with the money and says this farm has to get this and that farm has to get that — and that's it! They don't have to divide the money, they don't have to discuss it, to plan meetings, address the farmers, send letters, nothing. If the government had to do that, they'd need more staff. In the fields, a lot of farmers would just stop. Because they would have an arrangement with government one-on-one again and that feels tricky for some farmers. It's too far away, whereas we are a lot closer. People know who they talk to when they call [name of the group's coordinator], he's practical. You would see it in the field. And also the farmers would focus back towards production." (...) Some people [the innovative, conservation oriented farmers] would still enter contracts with government, "but they would not take their neighbours with them, because they are doing it and there is no group meetings. There would be individuals again, having a contract with government, instead of a group of farmers together through an ANV like this going to government" (NL18).

#### 4.2.2 Gaps identified by German groups and umbrella groups

In Germany, there was a similar diversity of views on the extent to which there would be gaps if LPV disappeared and whether it would be noticed. Views ranged from "Some might not notice at all" (DE4) to "A key actor would be missing" (DE11). Some find that LPV and their activities are not noticed much in the general public and among policy makers (DE2, DE10) but more among those people who have been in contact with an LPV. Another interviewee described: "This always depends on the regional repercussions, mainly in the municipalities, what reputation they [LPV] have with the mayors and the tourist associations" (DE3).

One gap identified by almost all interviewees was that tasks organised by LPV before would have to be covered by nature conservation authorities or other actors. In particular with regard to the

<sup>10 &</sup>quot;Manchem würde es vielleicht auch gar nicht auffallen."

 $<sup>^{11}</sup>$  "Es würde ein ganz entscheidender Akteur wegfallen."

<sup>&</sup>quot;Lis wurde ein ganz ernsenenden zusten. In ag in an den Kommunen, wie sie bei den Bürgermeistern und den Tourismusverbänden angesehen sind."



quality and frequency with which management activities would be carried out the lacking personnel capacity in authorities (DE13, DE4, DE11) was a concern. There were diverging opinions which aspects of LPV activities could be covered by other organisations and to what extent they could compensate for missing LPVs. This depends very much on the role(s) that LPV have carved out for themselves but also on the institutional context and financing in each state (or even district). For example, for Baden-Württemberg, Mecklenburg-Vorpommern and Sachsen-Anhalt interviewees said nature conservation authorities could cover some areas. For Sachsen, Thüringen and Brandenburg interviewees did not think that authorities had the capacity to fill this role. It is noteworthy that even in cases where other organisations were identified that could take on some of the technical functions of LPV, "the societal and political basis and acceptance would always be missing" (DE9) because LPV are very active in public relations and awareness raising in addition to their landscape management activities.

In other states there is a *Flächenagentur* (Land Agency, Brandenburg) or the Integrated Stations (Schleswig-Hostein) who could take on some activities of LPV. Very limited tasks could also be taken over by machinery rings (maintenance of hedges and tree pruning, DE9) and planning consultants (e.g. in Rheinland-Pfalz). Interviewees did not think this was possible in Hessen and Niedersachsen. Municipalities would face serious issues with regard to maintaining the condition of land they own (DE12, DE8). The same applies to large areas of state-owned land (e.g. wet grassland, DE8).

A reduced level of maintenance and a reduced area that could be maintained was anticipated for meadows, pastures and other valuable habitats such as fruit orchards. More mountain meadows would overgrow and follow the path of succession, less small river valleys would be kept open (DE2, DE7, DE4), and more grassland would be abandoned (DE8). Overall, the condition of habitats would deteriorate even further (DE11), in particular those habitats which are outside formally protected areas, or which are part of the cultural landscape and hence need ongoing management. This means, certain species (e.g. field hamster, DE13) would not be looked after any longer.

Another gap identified related to the implementation of existing species and habitat protection programmes, landscape management programmes and agri-environmental schemes. These programmes would exist but very little implementing action would occur (DE10), and much less funding would be drawn down by groups and individuals. This would cause problems from the ministries' point of view because their scheme budgets could not be fully spent (DE2, DE4 DE8) — coined as the issue of *Mittelabfluss*. Overall, interviewees interpret that less funding going to landscape and nature-related projects would mean fewer projects, less activities and hence less benefits to species, habitats and landscapes. Related to this point, interviewees perceived there would be a gap in advising state government on the design of 'sensible' agri-environmental schemes (DE7) where LPV are an experienced stakeholder in the subject matter.

Lack of implementation is also anticipated for EU Directives such as Natura 2000 (DE11) especially where there is no other organisation looking beyond the designation of sites to the actual implementation of management plans. In some states, LPV play an important role for monitoring, so these would be struggling to replace LPV's support for reporting of habitat and species condition

 $<sup>^{13}</sup>$  "(...) aber da fehlt halt immer diese gesellschaftliche und politische Grundlage und Akzeptanz."



(DE6). Some interviewees claimed that there would be less monitoring overall (DE4, DE13). A related point is that higher costs are anticipated for the implementation of programmes and specific projects because LPV work more efficiently than authorities (DE4) and they can rely on established networks.

In Sachsen and Schleswig-Holstein nature conservation trusts are important stakeholders. They would struggle to identify suitable land to purchase for nature conservation purposes, to negotiate management with farmers, and to manage some of the areas – all activities carried out by LPV. As one interviewee stated: "Authorities and trusts work with nature conservation groups and nature conservation stations [anyway] but no one would support cooperation to the extent the LPV does, the involvement of so many regional partners" (DE4).

Without LPV, there would be less communication, less exchange, and a lack of continuity in management and cooperation efforts (DE10, DE4). Several interviewees also anticipate a renewed surfacing of conflicts (DE7), between farmers and conservationists, but also between municipalities and farmers. Ultimately, this could lead to decreasing identification of the local population with their region (DE3). The assumption here is that many conflicts are based on misunderstanding and lack of information so that facilitating the communication between different land users is an essential contribution of LPV (DE17). A gap left without LPV is missing links to local stakeholders and networks (DE5, DE4, DE14). There would be no central contact person that farmers, other land managers, municipalities and even conservation authorities could go to (DE8, DE13), e.g. for swift unbureaucratic advice (DE2). Another possible gap is the missing person or group to initiate and develop projects across different land uses and interests, from the vague idea that small communities or individual stakeholders might have to something that is feasible and attracts funding (DE13, DE8, DE9).

LPV are also essential in developing perspectives for farmers to invest in landscape management as a source of income. A number of interviewees claim that without LPV, small farmers and shepherds are likely to give up farming due to lack of future perspectives (DE1, DE8). Without the effort that LPV invest into organising training and qualification for land managers to enable them to properly maintain habitats (e.g. how to cut an orchid meadow or manage a fruit orchard) or landscape elements (pruning hedges and trees, managing small ponds), there would be no capacity to actually carry out the work (DE11). It is the challenge of keeping vibrant farming enterprises, skilled workers and grazing animals in the region in order to maintain its cultural, natural and aesthetic value. One interviewee assessed realistically "We will not be able to stop the current trend [of farmers going out of business] but we can slow it down" (DE8).

One reason why measurable changes in the landscape were not widely identified as gaps by interviewees is the relatively slow nature of change and the lack of capacity for (comprehensive) monitoring. Many interviewees recognise that the changes in the landscape would be incremental and subtle. "There are 10-20 years, until the EU checks and says: Here, you did not pay enough

<sup>&</sup>lt;sup>14</sup> "Behörden und […] Stiftung arbeiten auch mit Naturschutzverbänden und Naturschutzstationen zusammen, aber die Aufgaben, die LPV übernehmen, diese kooperative Funktion, das Einbinden von vielen regionalen Partnern, dass würde keiner so übernehmen."



attention" by which time many valuable habitats might have disappeared or changed to the point where a reversal is impossible or extremely costly (DE8).

If the gaps that would be left by LPV disappearing are recognised too late, and efforts are made to revive groups or instigate new groups, we might encounter difficulties. Interviewees commented that re-establishing a group is difficult (DE6), these structures cannot be engineered to be fully functioning in four weeks (DE4). "If a group dissolves today, in this fast-moving, hectic time, people will find other areas to work in. Those activities that are financially attractive will be picked up by others, and the rest is just left behind"<sup>15</sup> (DE4).

#### 4.2.3 Achievements identified by Dutch groups and umbrella groups

Another approach to identifying what the agri-environmental collaboratives contribute and what might be lacking without them is to ask groups for their important achievements. Although this information should be complemented by asking non-group members what they perceived the group achieved, it is crucial to capture the insider view because not all activities are documented, promoted or even easily visible in the landscape and the community.

What the groups identify as their main achievements often mirrors their activities. In the West of Holland, many groups say that "Our work with the meadow birds" (NL19, NL21, NL25, NL23/24) is their biggest achievement. Some of them specify this with numbers from monitoring reports and highlight particular bird species whose numbers have increased, or at least remained the same, when in the Netherlands overall this species is in decline.

Other groups are proud to have compiled a map of their local area which highlights visitor attractions including natural and gastronomic features (e.g. paths, farm shops, historic information) and they are able to regularly update it (NL22, NL23/24).

Some achievements remind us that group members have interests and strong agendas, but the way they go about pushing these agendas is different from professional interest and lobby groups. These volunteers from medium sized groups (100-150 members) are proud that they have "resisted pressure from industry and cities wanting to grow" (NL22) and have succeeded in "keeping the space open". "For example, because there are a lot of birds here we have very strong arguments to say to the municipality 'Don't build more houses, don't build a highway through the area'. So the farmers know indirectly they have more reason to be here, less competition with building houses, it's in their long term interest to keep the landscape like this." (NL24)

Bringing farmers and conservationists together, and being the "bridge between farmers and society" (NL13, NL24) as well as building trust (NL12) were other highlighted achievements.

Some interviewees discussed how successful they were in influencing a change of mindset in very production-oriented farmers in their area and managed to raise "awareness among the farmers" (NL17/18) for biodiversity on farms. A combination of activities and changed behaviour helped to

<sup>&</sup>lt;sup>15</sup> "Wenn heute ein Verband auseinanderbricht, in dieser schnelllebigen, hektischen Zeit, sucht sich jeder irgentwo andere Betätigungsfelder. Das was sowieso finanziell attraktiv war, greifen andere auf, und der Rest bleibt einfach liegen."



improve the image of farmers in the region. Another interviewee found they helped to increase the share of nature-friendly farming (NL13).

While some interviewees are proud that they are helping farmers to earn money from 'producing landscape' (NL14-16) there were also sceptical voices about the way the group developed and became dependent on government funding. "What I don't like, that's my experience with the birds [programme]: we are getting money and now part of our farmers are money makers" (NL20). This farmer also criticises that this focus on money and generating additional income has led farmers to focus on individual aspects rather than seeing the farm as a whole and as embedded in the wider landscape. "Dutch farmers are always busy with one little part, birds or nature and getting money for it" (NL20).

Only two interviewees could immediately respond with numbers to the question of what their local group had achieved. One group said "In 5 years we have planted more than 10.000 trees. We have more than 50 landscape elements" (NL14-16). The other group, a provincial *Landschapsbeheer* organisation, referred to their recent volunteer report and was proud to have increased the number of volunteers (NL3) and could show which landscape elements (in units, length or area) the volunteers had established or maintained.

The improved communication and networking, putting different stakeholders in touch and negotiating and advising roles were rarely mentioned as separate achievements. This may be due to the common perception of groups that these activities are essential to achieving their goals and undertaking their activities. It lies at the heart of the understanding they have of what they are and do, and is difficult to grasp or capture in numbers even from a scientific perspective.

#### 4.2.4 Achievements identified by German groups and umbrella groups

The contributions of German *Landschaftspflegeverbände* (LPV) identified by interviewees broadly fall into two groups: 1) management activities and events for which often a quantitative figure was mentioned, and 2) the intangible contributions which were reported descriptively.

In the first group of contributions interviewees predominantly referred to management activities that were carried out, sometimes mentioning the size of specific areas. Examples included the organisation of ongoing grazing on marginal grassland in order to avoid overgrowing/succession (DE2, DE15, DE12), hedge planting to reduce wind erosion (DE14), maintenance of species-rich grassland, terraced vineyards, wetlands, and dry stone walls (DE5, DE13), removal of drainage to revitalise moors (DE6), and maintenance of landscape elements (DE3). One interviewee highlighted that their achievement was to look after those habitats and landscapes that are of little economic interest (DE10) and hence most vulnerable to abandonment. Specific figures were, for example, the maintenance of 100ha under compensation measures (DE8) or 2000ha under management agreements (*Vertragsnaturschutz*, DE12). It was viewed as an achievement if a group had broadened its range of activities (DE8), e.g. from a narrow focus on only managing fruit orchards to organising training courses in tree pruning, marketing the produce from the orchards and environmental education activities. In particular keeping traditional land use systems and cultural landscapes 'in use' meant that valuable habitat could be preserved through LPV activities (DE13).



In some states including Schleswig-Holstein and Baden-Württemberg, LPV are recognised by governmental stakeholders and policy makers as a valuable partner in the implementation of Natura 2000, ranging from the identification of areas, drawing up management plans, implementing the management activities and monitoring. One interviewee highlighted the LPVs' role in informing (*Aufklärung*) about land use and management restrictions that face farmers and other land managers in Natura 2000 areas (DE13). In other states such as Mecklenburg-Vorpommern, the main responsibility for Natura 2000 lies with conservation authorities.

The important role of LPV for monitoring and recording – not only in the context of Natura 2000 – was stressed by several interviewees (DE10, DE13, DE8). Examples included a stock take of traditional orchards, trees, springs, and bird species recording.

Overall, interviewees emphasised two aspects of landscape management activities and projects with LPV involvement: their higher quality and their broader base. For example, the implementation of compensation measures is improved, visible for example in a higher survival rate of the planted shrubs/trees (DE7) or the establishment of an Ökokonto where funds and land can be banked to achieve effective compensation to offset environmental impacts from building and development (DE12). The former can be due to the selection of appropriate species in the first place, the right planting time, and the regular check that plants root down well. Other interviewees believe that conservation and landscape measures are implemented to a higher standard and more sustainably because LPV are 'closer' to local actors and get local 'buy in' for measures (DE6, DE5, DE11, DE3). This may be linked to the close interaction with land owners and the provision of advice for nature conservation on farms (DE17, DE5), for example, farmers now make allowances for the birds in their meadow management (DE13). Put together, there is an immense breadth of projects that LPV are implementing, typically with a set of diverse partners (DE13) ranging from municipalities, authorities (water, soil, nature conservation, energy, regional development) to private companies such as the Deutsche Bahn, airports, road builders to small enterprises such as restaurants, supermarket chains, and animal feed supplier. The number of projects is seen as an indicator for vibrant groups as well as an indicator for the benefit for nature and landscape (DE12).

Several interviewees mentioned the involvement of the local population in landscape maintenance as an achievement (DE12). One group organises 10-20 working days annually, each with 30-110 people (DE15). In addition to the obvious benefit to the landscape, such involvement also enhances the identification with the locality and region, learning and interaction of diverse community members. In several cases this has sparked new initiatives which organise further events and activities (DE15, DE2, DE4, DE7). Fruit from orchards is given to charities for free (DE16). LPV are often the organiser for knowledge exchange events e.g. among shepherds (DE8) or well attended information events for land managers on riverside margin management (80-100 participants, DE16).

A few groups and coordinators highlighted the creation of jobs as an important achievement (DE5, DE3). Up to 100 seasonal workers were kept employed during the winter months to carry out landscape maintenance (pruning) (DE17). Through establishing a maintenance team (Landschaftspflegetrupp) many unemployed locals can be given at least part-time work (DE16). Such



efforts are especially beneficial if coupled with training and qualifications (e.g. fruit tree carer, DE12; tree pruning, DE17).

There is a general agreement that LPV are able to and often do bring substantial amounts of money into the region, e.g. by acquiring project funds (DE9) or keeping the landscape attractive for tourists (DE5). LPV are registered charities (gemeinnützige Vereine) and can apply for projects which a district administration or municipality cannot. Landcare coordinators are occasionally asked to express the value of LPV activities in monetary terms. "Some policy makers want to know 'what do I pay, what do I get'. So I tell them 'You pay 1 Euro and get a return of 5 Euros" (DE7). Another figure used is that about 65% of the money generated via projects is passed onto local stakeholders (farmers, businesses) (DE4), or in other terms, about 30% are needed to administer and coordinate a project and remain with the LPV (DE11). Groups can work more effectively and for less money (than e.g. an authority) (DE5, DE4).

Finally, some interviewees claim there are higher participation rates in agri-environmental schemes and management agreements (DE7) due to LPV advisory activities and the reputation they have with farmers. There were also two accounts of LPV having worked closely with the relevant state ministry in the design of schemes (Bavaria, Hessen).

The second group of contributions, the 'intangibles', often relate to communication, networking, conflict resolution, and negotiation. One interviewee coined LPV as 'Cooperation managers', for example for small-scale farmers that can only jointly make investments (DE2). While they are all interested, no one makes the first step and it needs a third party to start things moving.

A central achievement is the large degree of acceptance and trust from farmers (DE2), as well as from authorities (DE12, DE13, DE4, DE11) that LPV have earned over the years. They play an important role in advising the district authorities (DE8). They act as mediator or facilitator between farmers, conservationists, municipalities; and are particularly proud of their wide basis: 25 institutions in one LPV (DE8). "We can bring together many more people" (DE7). Groups continuously achieve cooperation across sectors and administrative boundaries (DE10) and establish viable networks (DE13). One group prides itself in having 150 municipalities they do projects with (DE9).

Many interviewees mentioned the contribution to communication and public relations (DE15, DE8, DE9) and the resolution of conflicts (DE17, DE6 DE4, DE14). "Getting people to talk to each other" and organising 'a round table' is one of the core strength of LPV<sup>18</sup> (DE17). "Even the relationship between state and voluntary nature conservation was characterised by mistrust" - which has significantly improved now (DE12). It was the LPV who convinced other stakeholders of the benefits

 $<sup>^{16}</sup>$  "Manche Politiker wollen das immer [wissen]: 'Was zahl ich ein, was kriege ich raus'. Dann sag ich immer, du zahlst 1 Euro ein und kriegst 5 Euro raus."

 <sup>&</sup>quot;Wir können viel mehr Leute zusammen bringen."
 "Es fehlte jemand, der die ,nervenaufreibende' Überzeugungsarbeit macht und die Leute an einen Tisch bringt."

<sup>&</sup>lt;sup>19</sup> "Das Zusammenspiel zwischen amtlichen und ehrenamtlichen Naturschutz ist natürlich auch viele Jahre von gewissem Misstrauen geprägt worden"



of nature and landscape management (DE7). Important activities are awareness raising and environmental education, both among farmers and the general public (DE5, DE13, DE9, DE11) or to convince farmers to adopt extensive land use (DE16, DE7). Producing brochures (DE10, DE12) and signage (DE10, DE17, DE13) are means to enhance knowledge about the region's cultural and natural heritage.

Further achievements mentioned by interviewees included

- Improved farmer image (DE9)
- Starting LEADER initiative in their region (DE8)
- Evidence that it is much easier "to get the ball rolling" ("etwas zu bewegen") with collaborative groups like LPV (DE6)

Last but not least, many interviewees considered the continued existence of groups as an achievement in itself. Coordinators were proud to say that no LPV had dissolved in Hessen. Even better, if the existing LPV are also active (DE5, DE14, DE3). One interviewee summarised the contribution of LPV to sustainable landscapes as follows: "By maintaining the landscape LPVs ensure that the people can stay in rural areas and enjoy a high quality of life. That's the social dimension. With a scenic landscape you attract the tourists, that creates jobs and the people can stay"<sup>20</sup> (DE5).

<sup>&</sup>lt;sup>20</sup> "Dadurch das LPV die Landschaft erhalten, tragen sie dazu bei, dass die Landbevölkerung auch dort bleiben kann und sich dort auch wohl fühlt. Das ist auch ein sozialer Faktor. Wenn die Landschaft schön ist, und die Gäste kommen, dann schafft das Arbeitsplätze und die Leute können da bleiben."



### 5 Use of Indicators: monitoring, recording, documenting

#### 5.1 Use of indicators in annual reporting

Indicators are units of measurement used to **determine the output (results) and the outcomes (impact) of actions** to be able to say whether the actions contribute to the sustainability of a rural landscape. German and Dutch agri-environmental collaborative document their activities and results mainly in annual reports, project reports, newsletters to their members, collective management plans, and on the group website (if the group has one).

Three-quarters of those groups who participated in the survey document indicators in their annual reports or project reports, but very few reports are available online. Hence, much of the data in reports is not readily available for further analysis. In addition, some of the data recorded by groups is not compiled in reports at all.

The reports that were analysed differed greatly in length, the amount of detail they provide, the extent to which indicators are used, and the type of indicators used (input, output, and impact indicators).

The analysis of annual reports of a sample of 18 Dutch groups is documented in de Lijster and Prager (2012)<sup>21</sup>. **For the Dutch groups,** it was found that the use of indicators differs according to the type of management activities. Indicators are most widely used to evaluate bird protection activities (nests, chicks hatched, birds). Other indicators owe their common usage to a requirement linked to subsidies provided for species or habitat management. For the management of grassland, margins and landscape elements, the following are typical indicators: area under management (in ha), number of trees and hedges planted, pruned or otherwise maintained, the number and total area of water pool, or km of fences established or restored. There is a tendency to measure and document more indicators if the group is involved in pilot or research projects. For activities relating to education and recreation it is common to report on the number of events (workshops, excursions, courses, guided tours, farm visits) and the number of participants, length of tracks and routes (in km), number of publications, and number of regional markets and other events attended. In general, impact indicators are not specified but feedback from participants is recorded in a qualitative, descriptive way, or success of an activity is derived from the 'demand for more'.

Overall, the indicators used are typically input (e.g. number of contracts, area enrolled in scheme) and output indicators (number of participants at events, area managed for bird protection). Strictly speaking, we cannot derive from these numbers whether the intended impact has been achieved. This is partially due to the interconnected and complex nature of the kind of contributions that agrienvironmental collaboratives aim to make. There are too many other factors that group the cannot influence but which may impact on the success or otherwise of their management activity. Hence, the use of impact indicators is marginal.

The analysis of the reports showed that Dutch groups cooperate extensively with a range of other partners. This cooperation creates a network of knowledge, helps to coordinate activities and allows

<sup>&</sup>lt;sup>21</sup> de Lijster E, Prager K. 2012. The Use of Indicators in Agri-environmental Management in the Netherlands. Indicators used by Dutch Agrarische Natuurverenigingen (ANVs) for Monitoring and Reporting their Activities. The James Hutton Institute. Available: www.macaulay.ac.uk/LandscapePartners/publications.php.



groups to fulfil a role as the contact point for land managers and government. None of the groups, however, specified this as the impact of their activities. It is rather treated as a precondition for achieving the aims of the group.

Groups may undertake monitoring activities without explicitly mentioning them in their annual reports. Much data on indicators regarding the contribution of groups may also be dispersed in numerous project reports or in the vision documents of groups (where these are compiled), and may increasingly appear in collective management plans, the field inventories and potentially in quality handbooks. The analysis indicates that annual reports are compiled to satisfy the requirements of group members rather than the requirement of sponsors and funding organisation. The latter typically request a project report or targets may be agreed and documented in a different form. Information in annual reports serves to inform ANV members of progress, and it can be assumed that they are satisfied with a qualitative and descriptive way of documenting their activities, appreciate milestones such as projects finished (a function served by newsletters). The compilation of data for an annual report, the writing up and layout is a resource-intensive process which some groups may not be able or willing to invest. There is a balance to be struck between implementing actual work on-the-ground and writing about it.

A similar but not as detailed analysis has been carried out for a sample of 20 annual reports of **German Landschaftspflegeverbände** (Heide and Prager 2012)<sup>22</sup>. The results of this analysis are similar to the findings for the Dutch sample.

#### 5.2 Use of indicators according to survey results

In the online survey, respondents were asked to select from a suite of 41 indicators those that their group uses "to assess the progress made by undertaking activities towards the group's goals or its impact and that are or have been used regularly by the group".

The capacity of groups to groups to measure and report indicators varies considerably. The sample included groups that measure no indicators at all (4 groups) to groups that state they measure all 41 indicators (4 groups) that were suggested in the questionnaire. These extremes might indicate that respondents felt the level of detail in the questionnaire was exaggerated. Out of 122 groups who participated in the survey, 103 responded fully to the questions about indicators. Of the 103 groups, 99 said they measure at least one indicator.

The number of indicators shows no statistically significant correlation with the number of members a groups has nor the size of the area a group covers. The analysis showed a statistically significant correlation between the "groups who have staff working for them" with the total number of indicators used. This correlation was stronger among the sample of German groups.

#### **5.2.1** Commonly used indicators

The following sections illustrate which are common and rarely used indicators among German and Dutch groups according to survey results (see full list in Annex 3). No preferences are apparent for

<sup>&</sup>lt;sup>22</sup> Heide, J.; Prager, K. (2012): The Use of Indicators in Annual Reporting by German Landschaftspflegeverbände (LPV). An analysis of annual reports and similar documents. The James Hutton Institute. Available: www.macaulay.ac.uk/LandscapePartners/publications.php



any group of indicators (see colour coding in the key below). That means that for example, indicators for numbers of events are not more or less often used than indicators relating to management activities or financial indicators. Results show that numerical indicators tend to be used more often than qualitative, descriptive indicators.

Some differences between German and Dutch groups became apparent.

- 'Total economic value' ranks 21<sup>st</sup> among Dutch groups but is the most common indicator among German groups (86%)
- 'Number of farmers involved in joint application/ project' ranks first among Dutch groups but only 10<sup>th</sup> among German groups
- 'Favourable feedback on group work from citizens' ranks 29<sup>th</sup> among Dutch groups (12<sup>th</sup> among German groups). This is remarkable since many Dutch groups say they are keen to involve and work with citizens.
- 'Number of birds/nest protected' ranks 6<sup>th</sup> among Dutch groups but only 31<sup>st</sup> in German groups.
- 'Number of events to involve the public' ranks 21<sup>st</sup> in Dutch groups while it is 9<sup>th</sup> in German groups

The ranking of the following indicators is similar across German and Dutch groups: projects implemented (by group or in conjunction with other partners), number of members, farmers under contract; size of area entered into scheme and size of area managed according to habitat plans; favourable feedback on work from municipality or government.

#### Key for Tables 3, 4 and 5.

Indicators for numbers of events, publications, or activities

Indicators for **numbers of people** involved, e.g. in the group, events, cooperation, advice or networks

Indicators relating to size, length and numbers of management activities, or to environmental quality

Economic/ financial indicators

Non-quantifiable indicators (qualitative indicators or descriptions)



Table 3: The 12 most often measured and recorded indicators among German and Dutch groups

Rank	Indicator use by German groups	%	Indicator use by Dutch groups	%
1	Total economic value of projects implemented	86	Number of farmers involved in a joint application/project	79
2	Number of projects implemented	81	Number of members	77
3	Number of projects jointly implemented with an authority	81	Number of farmers under contract	75
4	Size of area that is entered into a scheme	81	Number of projects implemented	72
5	Number of farmers under contract	76	Size of area that is entered into a scheme	72
6	Number of members	74	Number of nests/birds protected per season	72
7	Favourable feedback on our work from government authorities/municipality/mayor	74	Number of projects jointly implemented with an authority	70
8	Volume of income generated through joint applications	71	Number of species on managed area	68
9	Number of events to involve the public	67	The size of area that is managed according to habitat plans	63
10	Number of farmers involved in a joint application/project	67	Number of farmers that advice could be provided for	61
11	The size of area that is managed according to habitat plans	67	Favourable feedback on our work from government authorities/municipality/ mayor	61
12	Favourable feedback on our work from citizens	67	Number of maps/publications produced and distributed	60

Note: The percentage is not directly comparable, as there were 57 Dutch groups and 42 German groups in the sample. It is the ranking that is comparable.

#### **5.2.2** Rarely used indicators

Among the least commonly used indicators are 'Nitrate reduction', 'Area under erosion control measures', 'Tourists visiting', 'Water quality', 'Length of cycling and walking paths established', and indicators related to regional marketing initiatives.

This may indicate that only few groups undertake such activities, but also that they are more difficult to measure or that other bodies are responsible for this kind of data, e.g. tourism boards, water authorities, or regional marketing organisations.



Table 4: The 12 least often measured and recorded indicators among German and Dutch groups

Rank	Indicator use by German groups	%	Indicator use by Dutch groups	%
32	Length of ditches/ field margins managed	33	Length of cycling/ walking paths established/ maintained	32
33	Number of members that have diversified their enterprise/business	31	Number of years a regional product has been successfully marketed	25
34	Number of years a regional product has been successfully marketed	24	Length of water course/ size of wetland managed	23
35	Number of tourists visiting the area	21	Number of farms that have/ have implemented a nature-farm-plan	23
36	Water quality of the water bodies managed	21	Length of hedgerows planted/ managed per year	18
37	Number of farms that have/ have implemented a nature-farm-plan	19	Water quality of the water bodies managed	14
38	Income generated from a regional marketing initiative	19	Income generated from a regional marketing initiative	12
39	Length of cycling/ walking paths established/ maintained	14	Number of tourists visiting the area	11
40	Size of area where erosion control measures have been implemented	12	Size of area where erosion control measures have been implemented	4
41	Degree of nitrate reduction	10	Degree of nitrate reduction	2

Note: The percentage is not directly comparable, as there were 57 Dutch groups and 42 German groups in the sample. It is the ranking that is comparable.

There are a number of indicators which survey respondents stated the groups cannot measure due to lack of resources. Looking at the rarely recorded indicators together with the results on which indicators groups find difficult to measure (i.e. which were rated as "we have no resources/ means of measuring these indicators") yields further insights. To some extent the indicators that groups cannot measure resemble the least often measured indicators (Table 4), but not in all respects.

It appears that for German groups the monitoring of nests, birds and other species is difficult while in particular the nests/birds are a commonly used indicator in the Netherlands. In a similar vein, 12 groups in the German sample say they cannot measure the number of volunteers they work with, whereas problems with this indicator are minimal among Dutch groups (and this even though the groups specialising in volunteer coordination like *Stichtings* and *Landschapsbeheer* are not included in the sample underlying this analysis).

Indicators of which many groups say they do not have the resources to measure include:

- 'Members/ citizens that say they gained through involvement with the group'
- 'Feedback from members that they are more confident applying for projects or agrienvironment schemes'
- 'Favourable feedback on our work from citizens'.



Table 5: Indicators that up to a quarter of groups has no resources or means for measuring

German groups	%	Dutch groups	%
Number of times contacted by authority for advice/ support/ sought as partner	15	Number of tourists visiting the area	24
Number of nests/birds protected per season	13	Favourable feedback on our work from citizens	22
Number of species on managed area	13	Members/ citizens that say they gained (e.g. more knowledge) through involvement with the group	22
Members/ citizens that say they gained (e.g. more knowledge) through involvement with the group	13	Degree of nitrate reduction	15
Feedback from members that they are more confident applying for projects or agrienvironment schemes	13	Feedback from members that they are more confident applying for projects or agrienvironment schemes	15
Number of volunteers we regularly work with	12	Number of members that have diversified their enterprise/business	14
Number of tourists visiting the area	12	Water quality of the water bodies managed	14
Favourable feedback on our work from citizens	11	Number of farms that have/ have implemented a nature-farm-plan	14
Number of people and organisations we share information with	10	Length of water course/ size of wetland managed	13
Number of people and organisations that we have a working relationship	10	Size of area where erosion control measures have been implemented	13

Note: The percentage refers to the respective shares of German/ Dutch groups that indicated they have difficulty measuring these indicators.

# 5.3 Summary on the use of indicators by agri-environmental collaboratives

The findings showed that 96% of the groups surveyed reported that they measure at least one indicator, out of 41 suggested in the survey (e.g. numbers of trees planted, number of participants at an organised event). The extent of monitoring and recording activities, however, varies considerably between groups. While there is no correlation between monitoring and the size of a group (in terms of membership or area covered), there is a statistically significant correlation between the number of indicators documented by the group and the number of staff they employ. This underlines the important role that a project coordinator or facilitator can play for the ability of a group to monitor and report on their contributions. In addition, this role can be crucial for aligning evaluation efforts to higher level reporting requirements.

Numerical indicators tend to be measured more often than qualitative, descriptive indicators. Although non-quantifiable indicators are difficult to collect and assess they have the potential to capture important contributions, especially in relation to the social dimension of sustainability. One-off data is easier to compile than data compiled over a longer period of time. The popularity of different indicators varied between German and Dutch groups, but examples of commonly recorded indicators include 'Number of projects implemented', 'Number of group members', Number of



farmers under contract', 'Size of area managed', 'Number of birds/nest protected', and 'Number of events'.

Very few groups use indicators to record things such as: nitrate reduction; area under erosion control measures; visiting tourists; or water quality. Possible explanations for this may be that only few groups undertake such activities, such indicators are more difficult to measure, or other bodies are responsible for this kind of data. Many groups in both countries (up to 25% of surveyed groups) reported that they do not have the resources to measure certain indicators.

Groups tend to monitor the impact of the activities that are important to them and report them in ways that address their members' needs. Overall, there is little overlap between the indicators used by groups at the local and sub-regional levels and the indicators used in the Common Monitoring and Evaluation Framework (CMEF) at the European level<sup>23</sup>. Examples of common indicators in this respect includes farmland bird populations (biodiversity indicator), and numbers of training events. However, groups would struggle to feed into the CMEF indicators such as water quality, additional number of tourist visits, or number of jobs created. This highlights a lack of compatibility between the assessment of policy effectiveness at European level with the assessment of sustainable land management at the local scale.

In order to enhance the evaluation of rural development and agri-environmental funding schemes, projects or landscape management activities, it would be beneficial to draw on the expertise of local groups that are involved in the management in addition to (external) expert judgement. If there is demand for more data (e.g. monitoring results) to be provided by groups for evaluation at national or European levels, it is useful to know what characterises those groups that make greater use of indicators. The use of indicators was found to be enhanced if:

- There is overlap with expertise and personal interests of members;
- The group has defined for itself that effort, resources and time spent on monitoring and reporting is well invested;
- The group employs a professional who coordinates monitoring and manages the data;
- The group is affiliated with other volunteer or conservation groups that help in collecting and compiling the data;
- Data is held within the group rather than with individual members or other authorities;
- The group is involved in larger projects with a monitoring component (however, there is the problem that monitoring does not continue beyond project duration);
- Indicators are figures that the group needs to provide for funding applications, agreements with the municipality, or contracts;
- The groups has an active umbrella organisation or there is an organisational structure that coordinates data collection, analysis and promotion of group contributions; and
- There is a straightforward cause-effect relationships between management and its impact as well as clearly delineated boundaries.

<sup>&</sup>lt;sup>23</sup> The CMEF is the framework used for evaluating Europe's rural development policies which includes LEADER and agri-environmental schemes.



Three-quarters of groups document indicators in their annual reports or project reports, but very few reports are available online. Hence, much of the data in reports is not readily available for further analysis. In addition, some of the data recorded by groups is not compiled in reports at all. This lack of data (or its dispersed nature) and the lack of comparability create difficulties in evaluating and aggregating the contribution of individual groups. However there are some examples where advanced data collection and aggregation across scales is evident, such as farmland birds (particularly in the Netherlands).

The findings emphasise an important (and as yet unresolved) issue about how much paperwork the volunteers who make up these agri-environmental collaboratives can be expected to do; should they do the work on the ground or spend their time writing about it?

The assessment of policies and impact on sustainable landscapes would be greatly enhanced if data collection and recording was made easier for groups and individuals (e.g. through technology such as mobile phone applications), and data bases were shared and managed intelligently across organisations and levels.



#### 6 Resilience

In the context of coupled social-ecological systems (such as the cultural landscapes in which many agri-environmental collaboratives work), resilience has been defined as 'the capacity of a system to experience shocks while retaining essentially the same function, structure, feedbacks, and therefore identity' (Walker et al. 2006)<sup>24</sup>. However, when used with a focus on social systems, such as rural communities (or parts of it, like agri-environmental collaboratives), contrasting definitions are in use. According to Magis (2010, 402), "Community resilience is the existence, development, and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability, and surprise. Members of resilient communities intentionally develop personal and collective capacity that they engage to respond to and influence change, to sustain and renew the community, and to develop new trajectories for the communities' future."<sup>25</sup>

The analysis of project data so far has not yielded conclusive results on the specific link between the resilience of individual groups and the wider community, nor between the resilience of individual groups and the resilience of the cultural landscape they are active in. The study found anecdotal evidence of how a lack of social resilience, i.e. groups dissolving that had previously carried out management activities and maintained networks of various stakeholders, can impact on social-ecological resilience. An investigation of individual groups rather than aggregate types of groups is needed in order to derive insights on the degree to which these groups are a source of resilience in social-ecological systems, and to which extent we can infer from resilient groups that the whole community is resilient.

Comparative findings from not only Dutch and German groups, but also the *Distelverein* in Austria and the Farming and Wildlife Advisory Groups (FWAG) in Great Britain are published in the journal *Naturschutz und Landschaftspflege*<sup>26</sup> and in a book chapter<sup>27</sup>. Please contact the author if you are interested in a copy.

The following sections compile information related to group resilience, such as factors that are limiting the work groups would like to undertake. From the limitations that groups identified we can derive what groups would need in order to continue making contributions or to increase contributions. In addition, this chapter presents findings on the overall 'health' of groups and several aspects which influence overall group condition.

<sup>&</sup>lt;sup>24</sup> Walker, B.H., Gunderson, L.H., Kinzig, A.P., Folke, C., Carpenter, S. R. & Schultz, L. (2006) A handful of heuristics and some propositions for understanding resilience in social-ecological systems. Ecology and Society 11(1): 13. [online] URL: http://www.ecologyandsociety.org/vol11/iss1/art13/

<sup>&</sup>lt;sup>25</sup> Magis, K. (2010), "Community Resilience: An Indicator of Social Sustainability", Society & Natural Resources, 23 (5): 401-416

<sup>&</sup>lt;sup>26</sup> Prager K. 2011. Adaptives Management in Naturschutz und Landschaftspflege - Die Rolle von Gruppen und Verbänden in Europa. Natur und Landschaft 86 (8): 343 - 349

<sup>&</sup>lt;sup>27</sup> Prager K. 2012. Collective efforts to manage cultural landscapes for resilience. In: Plieninger T, Bieling C (Eds) Resilience and the Cultural Landscape, Cambridge: Cambridge University Press pp. 205-223



#### 6.1 Group health and limitations to their work

The interviews revealed many contributions that agri-environmental collaboratives make to the holistic management of a landscape although this cannot easily be backed up with quantitative data (see Section 5: Indicators). One reason for this is that many groups work in 'everyday landscapes' as well as in protected areas, hence they have a much broader influence than protecting 'pockets of nature'.

#### 6.1.1 What do groups need - what is limiting their work?

The groups can only contribute to sustainability (in terms of its different dimensions) if they can meet the numerous challenges they face. When asked whether they faced limitations to the activities that the group wants to undertake, 63% of German and 67% of Dutch groups said there were limitations. Among those groups in Germany and the Netherlands that acknowledge limitations, the main reasons are the 'lack of funding for projects' and the 'staff time' available to groups. In the Netherlands, lack of staff time and legal restrictions are equally important limitations (Table 6; Figure 9).

Table 6: Limitations of group activities in order of their importance for the respective groups

German groups	%	Dutch groups	%
Staff time	70	Funding	73
Funding	63	Staff time	37
Suitable areas	37	Legal	37
Legal	30	Acceptance	24
Staff continuity	22	Volunteers	20
Acceptance	19	Community support	12
Community support	15	Member support	10
Volunteers	15	Suitable areas	10
Member support	11	Data access	8
Data access	11	Staff continuity	0

The remaining limitations were of less importance. Only a small share of groups found the lack of support from members or the wider community, the lack of volunteers or acceptance among relevant people to be a limitation for their activities. Very few groups (around 10%) found it difficult to access data about areas or properties that are relevant to a project.

A difference between the countries is that in Germany, the availability of suitable land is considered an important limitation whereas this is not much of an issue in the Netherlands.

Staff continuity was a problem identified as a problem by almost a quarter of the German groups but not mentioned as an issue by any Dutch group in the online survey. Nevertheless, the interviews showed that the importance of staff continuity was well recognised throughout groups in both countries.



Other limitations mentioned in the survey include

- German groups: a) lack of non-project related funds to pay for the preparation of projects and applications; b) lack of funds to cover the group's financial contribution (*Eigenanteil*) required for projects; c) lack of co-financing, d) lack of suitable people to carry out measures, e) extremely high bureaucratic effort
- Dutch groups: a) activities have to be part of the group's objectives, b) that activities need to be proven to lead to improvement of nature and landscape, c) lack of available land in small groups, d) a misconception of the group as 'gardeners'.

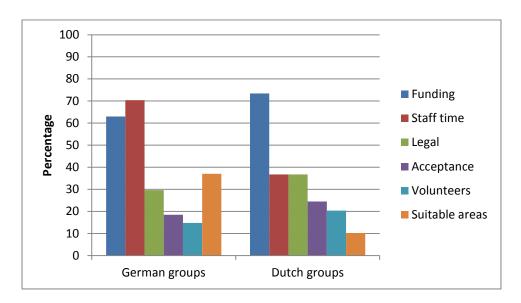


Figure 9: Comparison of most important limitations for German and Dutch groups

The interviews also highlighted that some groups struggle to recruit new members. It is common for groups to have members in the upper age bracket (50+) which is often due to the nature of working life and that people have more time when they are retired.

#### 6.1.2 How are groups doing overall?

Looking at overall 'health', the majority of both German and Dutch groups in the survey assess their condition as 'good' or 'very good' (Figure 10). We need to keep in mind that this is the assessment of just one member of the group speaking for the whole group. In the interviews that were held with several members of the same, group differences in opinion became clear (see Chapter 2: Methodology). Different assessments might come about because different members would place different weights on the various aspects that might make up group health, and what a healthy group is for them. In addition, groups that struggle are less likely to be represented in the survey because they would lack the time to participate in a survey.



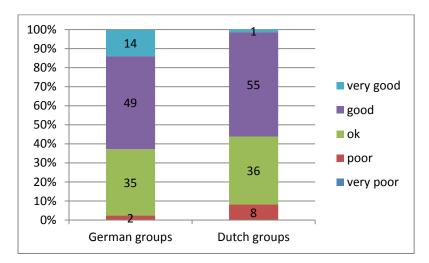
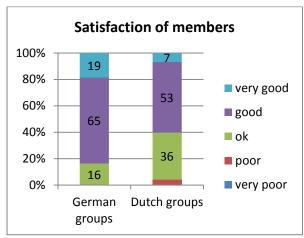


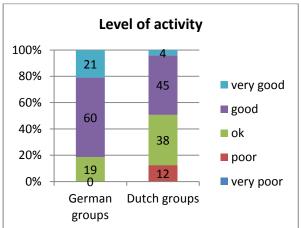
Figure 10: The rating of their agri-environmental group's 'health' as selected from a choice of 5 categories from very good to very poor (n=116, 43 German, 73 Dutch)

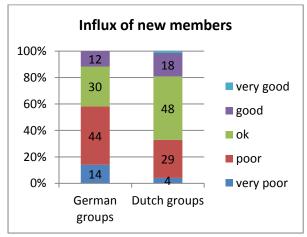
Looking in more detail at how groups rated various aspects (Figure 11) we find that member satisfaction is generally assessed as 'ok' or 'good', with almost 20% of German groups thinking that their members are very satisfied. In comparison across groups in both countries, the level of activity was assessed somewhat better by German groups, while influx of new members appears to be more of a problem in German than in Dutch groups. The German groups are slightly more concerned about their financial viability, with the share of German groups assessing their viability as 'poor' being larger than their Dutch counterpart (28% and 18% respectively). The assessments for how well networked the groups are within the community and with other stakeholders can be interpreted as slightly better for the German groups that participated in the survey.

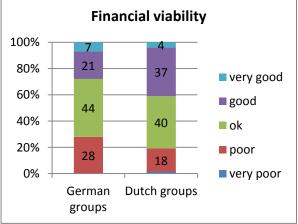
Overall, groups are showing a good level of activity but in the longer term the recruitment of new members needs more attention. Although a large share of groups assessed their financial viability as 'ok', the interviews showed that this is an area of concern and there is scope for improvement.











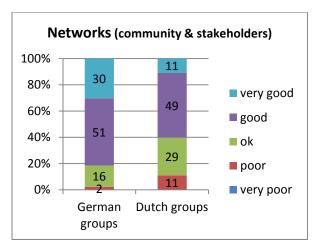


Figure 11: Assessment of member satisfaction, level of activity, influx of new members, financial viability of the group, networks within the community and with other stakeholders by German and Dutch groups (n=116, 43 German, 73 Dutch groups)



A further observation can be made from the data regarding the relationship between the level of activity and financial viability. When comparing the assessments that respondents had given with regard to the level of activity and the financial viability of the group (Figure 12), we see that all German groups show a higher or equal rating for their level of activity.

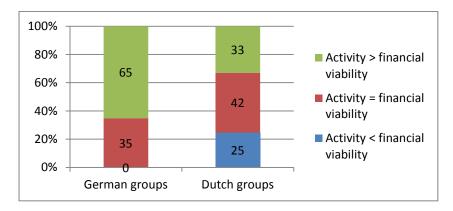


Figure 12: Relationship between level of activity and financial viability (n=116, 43 German, 73 Dutch groups)

This can be interpreted to mean that despite financial difficulties, groups manage to be active, or that they try to pursue projects and activities that do not require a great deal of financial input.

In contrast, a considerable share of Dutch groups (25%) rated their financial viability higher than their level of activity. This can merely reflect that groups in different countries assess differently what 'active' or 'financially viable' means. It could also indicate that Dutch groups tend to be better off, get better paid for what they do, that more of their activities are paid, or that the group as a whole does not need to be as active as their German counterparts. A link can be drawn to the evaluation of dimensions of sustainability: a larger share of German groups are contributing to the social, rather than the economic, dimension of sustainability, and a larger share of German groups places their main focus on the social dimension of sustainability (see Section 4.1 Assessment of group contribution to sustainable landscape management).

#### 6.1.3 Group comments on their current condition

#### **German groups**

Respondents were invited to comment on their rating in the survey or specify important aspects. One German respondent highlighted that this was their own (internal) assessment of group health and related factors which "might be assessed differently by external people".

Two groups emphasised the point of limited staff and staff time: "many things fall through because we are lacking sufficient staff". Another comment mirrored the responses to the questions on limitations to group activities, i.e. the insecurity linked to project funding which is a barrier to long term planning, the extensive effort necessary for preparing project applications and low per hectare payments. In particular the financial situation of the municipalities is crucial as they are one of the major partners for implementing conservation activities for German groups: "Many municipalities cannot afford nature conservation if measures cannot be covered by other income." A group from Bavaria who had rated their financial viability as 'ok', suggested that "basic funding for group



activities from state government budgets would be ideal". 'Basic funding' probably refers to institutional funding provided independently of projects.

One respondent, who had rated the influx of new members as poor, explains that all relevant "desired" organisations are currently member of the group. "For other interested parties, in particular the land managers or land owners, the membership is expensive" which is the reason for few additional members. Another comment illustrates the difficulty that several respondents may have had in assessing for example, the networks with other stakeholders. "The network with our local municipalities is poor, whereas contacts to [name of larger city] are good. We have problems networking with other nature conservation organisations."

A young group reports that it took them 6 hard years to "get going financially". They emphasise the support they received from the ministry, the agricultural agency and the forestry department whereas the districts lacked flexibility and provided no support at all.

#### **Dutch Groups**

Comments from Dutch groups often explained why the respondent had chosen a particular rating. For example, a respondent who rated the group's financial viability as 'poor' and all other aspects as 'ok' or 'good' clarifies: "the financial situation has been very changeable throughout the years. There was a period with 3 fixed full-time staff members. Currently we are going through a sort of bad patch." This underlines the 'snap shot' character of a survey from which is it not feasible to extrapolate trends (see Chapter 2: Methodology). A group who rated their overall health as 'poor' comments "Poor is exaggerated, but it is difficult to maintain a broad basis for agricultural nature conservation, due to a constantly changing policy."

A number of comments were made regarding the mindset and incentives of farmers, including "The agricultural sector shows little interest if there's no financial gain for that sector", farmer "cooperation is depending on government support, particularly its continuity", or "most of the area is occupied by straight on farmers. There is little interest in nature and landscape." A contrasting example from a *Landschapsbeheer* organisation who works with volunteers rather than farmers is that they occasionally face a 'lack of work' for interested people. "There are 50 people who want to become member, but we only allow members when we also have work for them every year." The group tries to address this by negotiating with municipalities to call on their members for maintenance of landscape elements.

Somewhat surprisingly for a country that has a reputation of citizen participation and of being well organised, several Dutch respondents commented on issues of trust and lacking cooperation from government, e.g. "The trustworthiness of the government restrains participation" and "Little cooperation from the government to hand over the management of a nature compensation area." This is coupled with complaints about the high amount of bureaucracy and regulation: "Before you can proceed to (...) management, there's often bureaucracy. This evokes aversion, which makes it difficult" and "In our area, little is permitted by the government." The comment that "inclination and intrinsic motivation for territorial cooperation is very mediocre" could apply to a variety of stakeholders, also beyond government or municipality.



Another major issue reflected in groups' comments is that of funding levels and continuity: "Organisational costs limit activities and discourage work". Even a group who rated every aspect 'good', except financial viability was 'ok' said "Our problem is that we have a lot of ideas but too little time and money to execute them." In contrast, another respondent highlighted that "Funds for new projects is often not a problem. Giving continuity to existing projects is (...) a problem."

#### 6.2 Summary: Resilience of agri-environmental collaboratives

A theme that came out strongly from the interviews was that resilient groups are better able to make contributions to sustainable landscape management. For example, they build durable networks and trust with a diverse set of stakeholders that are important for landscape management; they compile tacit environmental and social knowledge; they are implementation mechanisms for policies and spatial plans; and they act as 'multipliers' (contacts) for authorities to a broad range of land managers. Hence, fostering resilience and longevity of local groups is a beneficial investment. The following factors were found to influence group resilience positively:

- Commitment from local and regional authorities to support groups (both financially and inkind, by acknowledging them as valued partners)
- Successful implementation of locally relevant projects
- Utilisation of a variety of funding sources rather than dependency of a single funding source
- Flexible group structures to deal with changing policy and funding environments
- Sufficient influx of new members to maintain a viable group size
- Support of a coordinator and/or a diverse skill-set among members (or affiliates) of the groups
- Strong umbrella groups

When exploring the resilience of collaborative groups to socio-political and environmental change, various internal and external changes were found to impact on groups, including financial difficulties relating to funding programmes, lack of member or partner support, lack of purpose (where original aims have been met), and the lack of an organisational support structure. Without the integration into wider networks resilience is more difficult to achieve. This became apparent for the example of the *Distelverein* in Austria and the Farming and Wildlife Advisory Group (FWAG) in the UK. The Scottish branch of FWAG existed since 1984 and dissolved in 2009, with the English branch going into administration in 2011. However, some individual groups have re-established themselves soon after. These processes could potentially be explained with the idea of tipping points from resilience theory. In addition, several other social theories could explain the ways resilience is built or lost.

It is important to keep in mind that even active, flourishing groups depend on enabling policies and open-minded governmental actors. "From a policy perspective it appears more beneficial to support existing social network structures (groups) rather than letting them dwindle and then try to recreate networks when a need is perceived. Key informants from Germany commented that it takes up to



two years to gather enough 'critical mass', motivation and leadership to establish a group; if a group dissolves it will take several years before stakeholders are receptive to a fresh start" (Prager 2012).<sup>28</sup>

"It is difficult – if not impossible – to make statements about the consequences of a lack of social resilience for the SES because this depends on many factors working in parallel so that cause and effect cannot be unambiguously attributed. In addition, there are time lags between disturbance and effect, and both fast and slow variables need to be considered. Reliable findings would require concrete measurements to establish a baseline, a similar area as a control case, and ongoing monitoring to assess what the impact of resilient or non-resilient collaborative groups on the respective landscape is. Since boundaries of social systems and ecological systems are arbitrary, issues around boundaries remain unsolved. Applying resilience theory to social systems and investigating disturbances is challenging – and may yield limited insights – due to the complex multilayered nature of disturbances and because social systems consist of stakeholders who consciously act, design rules and make decisions to influence the systems" (ibid, p219f).

<sup>&</sup>lt;sup>28</sup> Prager K. 2012. Collective efforts to manage cultural landscapes for resilience. In: Plieninger T, Bieling C (Eds) Resilience and the Cultural Landscape, Cambridge: Cambridge University Press pp. 205-223



#### 7 Annexes

#### 7.1 Annex 1: List of interviewees

#### The Netherlands

Group	Umbrella organisation	Research
Agrarische Natuur- en Milieuvereniging Gagelvenne ANOG Groningen Oost (2) ANV Hooltwark (3) ANV 't Onderholt Boer and Natuur ZWK De Hollandse Venen Natuurlijk Voorne Putten Plattelandscoöperatie Peel & Maas regio Santvoorde Voorborg (2) Stichting Stawel - Lonneker Marken Vereniging voor Agrarisch Natuurbeheer Tusken Skarren en Marren	Landschapsbeheer Nederland (2) Veelzeijdig Boerenland Natuurlijk Platteland Oost Landschapsbeheer Zuidholland Agrarisch en Particulier Natuur- en Landschapsbeheer Nederland	Wageningen University (3) Centrum Landbouw en Milieu (CLM)
15 interviewees from 11 groups	6 interviewees from 5 organisations	4 interviewees from 2 organisations

#### Germany

Group	Umbrella organisation	Research
Biologische Station Euskirchen	Coordinator Sachsen	
Landschaftspflegeverband Mittlere	Coordinator Thüringen	
Oder	Coordinator Schleswig Holstein	
LPV Elbe-Kreuzhorst-Klus	Coordinator Brandenburg	
LPV Göttingen	Coordinator Sachsen-Anhalt	
LPV Rheingau-Taunus	Coordinator Niedersachen	
LPV Südpfalz	Coordinator Hessen	
	Coordinator Baden-Württemberg, Landesanstalt für Entwicklung der Landwirtschaft und der ländlichen Räume (2)	
	Coordinator Mecklenburg-Vorpommern,	
	Landesforst Mecklenburg Vorpommern (2)	
	DVL board, coordinator Nordrhein-Westfalen	
	DVL board, Coordinator Rheinland-Pfalz	
7 interviewees from 7 groups*	13 interviewees from 11 organisations*	0

#### **Total**

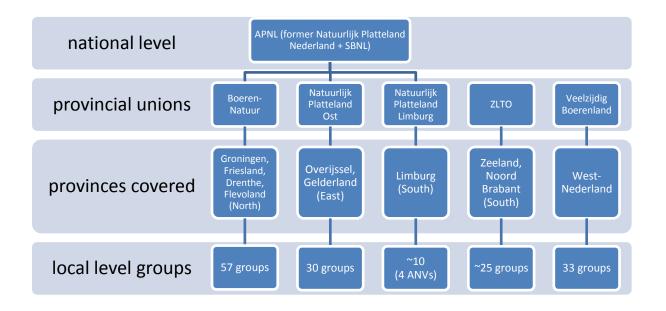
22 interviewees from 18 groups	19 interviewees from 16 organisations	4 interviewees from 2
		org.

Note: Some interviewees held different roles at the same time.

<sup>\*</sup> In addition to the face-to-face interviews with German groups listed here, short phone interviews were carried out with members of Landschaftspflegeverband Blumberg, Landschaftserhaltungsverband Heilbronn, Landschaftspflegeverband Wolfenbüttel, and the Coordinator for Bayern. The report also draws on a Master thesis by Nils Landmann (2011): Landschaftspflegeverbände -Exemplarische Untersuchung zu Struktur, Aufgaben und Projekten (Georg-August-Universität Göttingen) and his interviews with Landschaftspflegeverband Mittelfranken, Landschaftspflegeverband Uckermark-Schorfheide and Landschaftspflegeverband Sternberger Endmoränengebiet (LSE).



# 7.2 Annex 2: Overview of umbrella groups for Dutch Agrarische Natuurverenigingen



APNL = Agrarisch en Particulier Natuur- en Landschapsbeheer Nederland

SBNL = Stichting Beheer Natuur en Landelijk gebied

ZLTO = Zuidelijke Land- en Tuinbouworganisatie (Southern Agriculture and Horticulture Organisation)



### 7.3 Annex 3: Full list of indicators

7.5 Allilex 5: Full list of illulcators		Darson
German groups (42 groups in the sample)	Rank	Percen- tage
Total economic value of projects implemented	1	86
Number of projects implemented	2	81
Number of projects jointly implemented with an authority	3	81
Size of area that is entered into a scheme	4	81
Number of farmers under contract	5	76
Number of members	6	74
Favourable feedback on our work from government authorities/ municipality/ mayor	7	74
Volume of income generated through joint applications	8	71
Number of events to involve the public	9	67
Number of farmers involved in a joint application/project	10	67
The size of area that is managed according to habitat plans	11	67
Favourable feedback on our work from citizens	12	67
Number of people and organisations that we have a working relationship	13	64
Volume of funding that members receive per year	14	64
Number of landscape elements managed per year	15	62
Number of people and organisations we share information with	16	60
Length of water course/ size of wetland managed	17	57
Length of hedgerows planted/ managed per year	18	57
Members/ citizens that say they gained (e.g. knowledge) through involvement with group	19	55
Number of maps/publications produced and distributed	20	52
Number of farmers that advice could be provided for	21	52
Number of visitors at events for the public	22	50
Number of species on managed area	23	48
Number of awareness raising activities	24	45
Number of volunteers we regularly work with	25	45
Ratio of funding generated and share passed on to members or the regional economy	26	45
Number of educational materials produced and distributed	27	43
Number of members that have benefited from a regional marketing initiative	28	43
Number of times contacted by authority for advice/ support/ sought as partner	29	36
Feedback from members that they are more confident applying for projects or AES	30	36
Number of nests/birds protected per season	31	33
Length of ditches/ field margins managed	32	33
Number of members that have diversified their enterprise/business	33	31
Number of years a regional product has been successfully marketed	34	24
Number of tourists visiting the area	35	21
Water quality of the water bodies managed	36	21
Number of farms that have/ have implemented a nature-farm-plan	37	19
Income generated from a regional marketing initiative	38	19
Length of cycling/ walking paths established/ maintained	39	14
Size of area where erosion control measures have been implemented	40	12
Degree of nitrate reduction	41	10



		Percen-
Dutch groups (57 groups in the sample)	Rank	tage
Number of farmers involved in a joint application/project	1	79
Number of members	2	77
Number of farmers under contract	3	75
Number of projects implemented	4	72
Size of area that is entered into a scheme	5	72
Number of nests/birds protected per season	6	72
Number of projects jointly implemented with an authority	7	70
Number of species on managed area	8	68
The size of area that is managed according to habitat plans	9	63
Number of farmers that advice could be provided for	10	61
Favourable feedback on our work from government authorities/ municipality/ mayor	11	61
Number of maps/publications produced and distributed	12	60
Volume of funding that members receive per year	13	60
Volume of income generated through joint applications	14	60
Number of awareness raising activities	15	58
Number of volunteers we regularly work with	16	58
Number of people and organisations we share information with	17	56
Number of people and organisations that we have a working relationship	18	56
Number of times contacted by authority for advice/ support/ sought as partner	19	56
Ratio of funding generated and share passed on to members or the regional economy	20	56
Total economic value of projects implemented	21	54
Number of events to involve the public	22	53
Feedback from members that they are more confident applying for projects AES	23	51
Number of visitors at events for the public	24	47
Number of landscape elements managed per year	25	46
Number of educational materials produced and distributed	26	44
Members/ citizens that say they gained (e.g. knowledge) through involvement with group	27	44
Number of members that have diversified their enterprise/business	28	39
Favourable feedback on our work from citizens	29	39
Length of ditches/ field margins managed	30	33
Number of members that have benefited from a regional marketing initiative	31	32
Length of cycling/ walking paths established/ maintained	32	32
Number of years a regional product has been successfully marketed	33	25
Length of water course/ size of wetland managed	34	23
Number of farms that have/ have implemented a nature-farm-plan	35	23
Length of hedgerows planted/ managed per year	36	18
Water quality of the water bodies managed	37	14
Income generated from a regional marketing initiative	38	12
Number of tourists visiting the area	39	11
Size of area where erosion control measures have been implemented	40	4
Degree of nitrate reduction	41	2



AES = Agri-environmental schemes

Percentage = Share of groups who stated they used this indicator