



The Use of Indicators in Agri-environmental Management in the Netherlands

Indicators used by Dutch Agrarische Natuurverenigingen (ANVs) for
Monitoring and Reporting their Activities

By ELISA DE LIJSTER^a and KATRIN PRAGER^b



May 2012

^a Elisa de Lijster – Rural Sociology Group, Wageningen University, P.O. Box 8130, 6700 EW Wageningen, The Netherlands.
Email: elisadelijster@yahoo.com

^b Katrin Prager – Social Economic and Geographical Sciences, The James Hutton Institute, Craigiebuckler, Aberdeen AB15
8QH, United Kingdom. Email: katrin.prager@hutton.ac.uk





Table of Contents

Acronyms	4
Introduction	5
1. Documentation produced by ANVs – Annual Reports.....	6
1.1. Availability of annual reports.....	6
1.2. ANV Membership and Organisation	7
1.3. ANVs and Cooperation with Partners	9
1.4. Reported Activities and Indicators: Species, Habitat and Landscape Management	10
1.4.1 Meadow Bird Protection.....	11
1.4.2 Geese Management.....	14
1.4.3 Botanic Grassland Management.....	15
1.4.4 Ecological Margin Management	16
1.4.5 Landscape Management – Maintenance and Restoration.....	18
1.4.6 Owl, Swallow and Farm Bird protection	19
1.5. Reported Activities and Indicators: Recreation, Education and Innovation.....	21
1.5.1 Recreation	21
1.5.2 Education	22
1.5.3 Innovation	23
1.6. Financial Aspects: Costs and Funding	24
2. Documentation produced by ANVs – Websites, Newsletters and other Documents	27
2.1. Websites.....	27
2.2. Newsletters	29
2.3. Vision Documents	30
3. Documentation produced by ANVs under the New Subsidy Scheme SNL	31
3.1. Collective Management Plans.....	31
3.2. Certification of ANV under new subsidy regime: Quality Handbook	33
4. Conclusion.....	34
References	37
Annex A: Fusions of ANVs into bigger umbrella organisations.....	39
Annex B: ANV involvement in field margin management pilots	41



Acronyms

	<i>Dutch</i>	<i>English</i>
ANV	<i>Agrarische Natuurvereniging</i>	Agri-environmental cooperative group
CLM	<i>Centrum voor Landbouw en Milieu</i>	Centre for Agriculture and Environment
LTO	<i>Land- en Tuinbouw Organisatie</i>	Agriculture and Horticulture Organisation
IPO	<i>Interprovinciaal Overleg</i>	Inter-Provincial Consultation
SNL	<i>Subsidie Natuur- en Landschapsbeheer</i>	Subsidy for Nature and Landscape Management
SOVON	<i>Samenwerkende Organisatie Vogel Onderzoek Nederland</i>	Cooperative Bird Research Organisation Netherlands



Introduction

This report represents part of the research carried out in the Landscape Partners Project which aims to identify, analyse and assess the contribution of multi-stakeholder partnerships to the sustainable management of rural landscapes and to the well-being of communities. For the Dutch case study, the investigation focussed on *Agrarische Natuurverenigingen* (ANVs). They are agri-environmental collaborative groups which were selected because they represent a mix of stakeholders, including farmers, citizens, municipalities and nature conservation interests.

This report presents the findings of a document analysis which complements the results of an online survey (July – October 2011). The aim of the document analysis was to assess

- to what extent ANVs use indicators to monitor and record the progress they make,
- which indicators they use, and
- to what extent these indicators are documented and published, e.g. in annual reports.

This would allow us to judge whether the contribution of ANVs can be evaluated based on available material produced by the groups. We analysed 18 annual reports and other documents produced by ANVs, such as newsletters, websites and collective management plans. In addition, we reviewed Dutch publications produced by various research and advisory groups, mainly of the Centre of Agriculture and Environment (CLM). The latter provided more insights into the dynamics of ANVs, i.e. the groups' organisational structure, monitoring activities and the reporting and documenting of their progress.

There are approximately 153 ANVs in the Netherlands, of which 122 have been contacted through their umbrella organisations 'Boerennatuur' (52 ANVs), 'Natuurlijk Platteland Oost' (31 ANVs) and 'Veelzijdig Boerenland' (33 ANVs) and asked to fill in the online survey (those results are reported elsewhere). In addition, 6 of the ANVs represented by ZLTO (31 ANVs) completed the questionnaire. The contact details of the groups were identified from the listings provided on the umbrella group websites.

In total, 58 ANVs (response rate 47%) completed the online survey fully, and another 16 ANVs (13% response rate) did so partially. In addition, organisations like the umbrella organisations or provincial Landschapsbeheer associations (associations focussing on coordination of volunteer activity for landscape management) filled in the survey but were not considered due to their different group structure and purpose. The total response rate (60%) is high for this type of survey approach, and the 47% that completed the questionnaire fully suggests that the sample has potential to be representative of the overall group population.

Of the 58 ANVs that completed the survey, 16 state that they publish their annual reports online but only 8 of these could be found. In total, 18 annual reports were found online at the website of the Dutch ANVs, which includes ANVs that did not respond and the ZLTO ANVs.

1. Documentation produced by ANVs – Annual Reports

1.1. Availability of annual reports

About 12% of the Dutch ANVs (18 out of 153) publish an annual report online on their website. Group websites and information from online newsletters and minutes suggests that a much higher share of ANVs produce annual reports. This finding is supported by a national survey undertaken in 2001 (Oerlemans, 2001) which states that “two third of the ANVs publish an annual report, and about half of the ANVs publishes periodically newsletters”. As stated in online ANV newsletters and minutes (e.g. ANV VAL Oude IJssel, PAN Winterswijk and Capreton), the annual reports are discussed at general membership meetings, and are sent to members beforehand (see also section 1.2). However, as these annual reports are not published online, they could not be taken into account for the analysis.

Frequently, a foreword of the ANV chairman is found in the annual reports, outlining the highlights of the previous year or reporting period. Most common topics are: the board, nature and landscape management, recreation, education and innovation. The length of the reports ranges from 2 to 29 pages and thus differs substantially (Figure 1). The shorter annual reports often do not have pictures or graphs at all, and resemble a newsletter or summary. These reports (2–7 pages) show less detailed information, and are mainly intended for ANV members. The intermediate reports (7–15 pages) and the longer reports (16–29 pages) make extensive use of pictures and graphs and contain more detailed information which is more accessible for a broader audience.

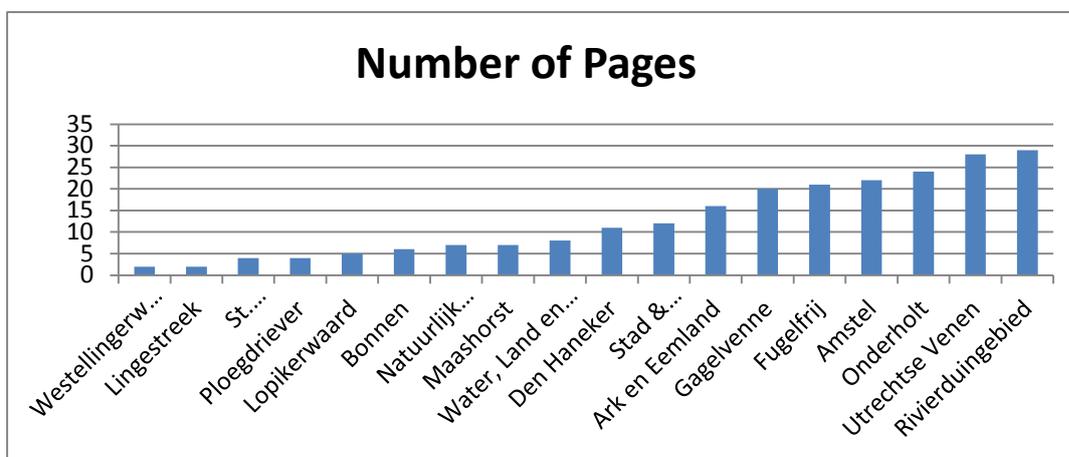


Figure 1 Number of pages of ANV annual reports

The 18 reports that were analysed cover different reporting periods and years. The reporting period ranges from the year 2007 to 2012. Both the reports of ANV Gagelvenne and ANV de Bonnen are an exception, as the report of ANV Gagelvenne covers a period from 1993 to 2003 and the report of ANV de Bonnen dates back to 2003. Most annual reports are fairly recent, dating from 2010 (7 reports) and 2011 (4 reports). No correlation could be found between the length of the reports and the reporting period. For instance, the report of ANV Westellingerwerf contains 2 pages and the report of ANV Onderholt contains 24 pages, and both are reporting on the year 2011. In general, reports produced by the groups cover a one-year period. The compilation of a review-like report such as the one produced by ANV Gagelvenne would have taken considerable resources. Such an effort is neither likely to be possible for many groups nor on a regular basis.

Although most annual reports are fairly recent, caution still has to be taken in making cross-comparisons among the annual reports, as the annual reports illustrate temporary snap-shots over different periods. This is especially the case if we take into account that in 2010 the subsidy scheme for agricultural nature and landscape management changed substantially, requesting different reporting activities and organisational skills of the ANVs.

1.2. ANV Membership and Organisation

More than half of the ANVs mention their founding year in the annual report. This is presented as a fact, rather than as an achievement for the longevity of the group. Almost all ANVs whose reports we investigated were founded around 2000 – 2002 (Figure 3). Exceptions are Den Haneker (1994) and Stad & Ommeland (1998). Water, Land, en Dijken is a fusion of several other ANVs, so ANV activity was already present before 2008. In the Netherlands, the formation of many ANVs occurred between 1997 and 2001 (Oerlemans et al., 2006), triggered by the Nature Policy Plan (1990) and the decentralisation of nature management to the Provinces (1997). Figure 2 shows the increase of ANVs in the Netherlands until 2006. By 2006, most ANVs are established in the North (33 groups) and in the West (28 groups) of the Netherlands (Oerlemans et al., 2006)

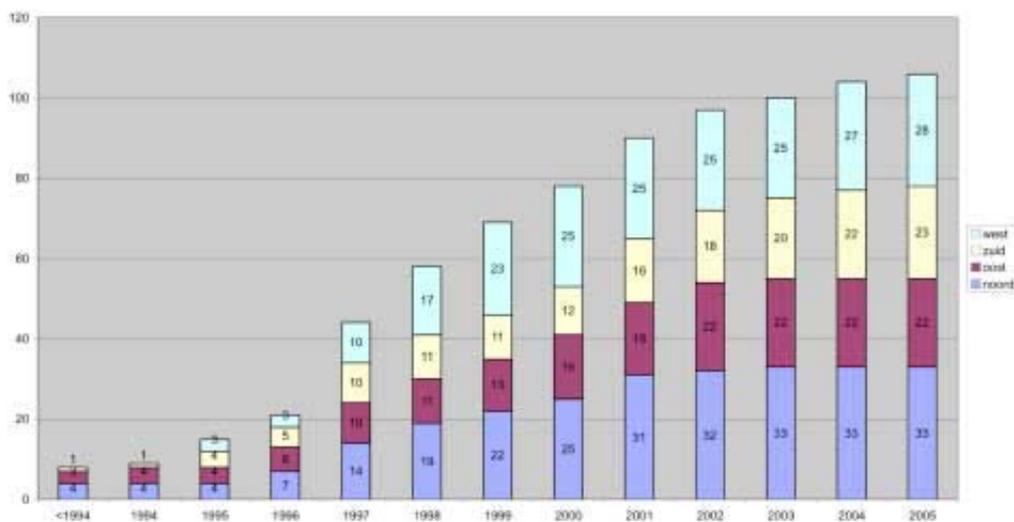


Figure 2 Increase of ANVs 1994-2006 (Oerlemans et al., 2006)

According to the annual reports, the number of members ranges from 50 and 800 members (Figure 3). However, these numbers might have changed by now as some numbers are from annual reports of 2003. The variation in membership is also supported by a study by Oerlemans et al. (2007) who found that ANV membership ranges between 0 and 1300. The most common membership size of ANVs is around 100 members (Oerlemans et al., 2007).

Membership size is more frequently mentioned in the annual reports than number of staff. The largest share of members are farmers but many ANVs also have citizens as member. The annual report of ANV Maashorstboeren explicitly states that the combination of farmers and citizen members is an advantage as it enhances mutual understanding and social support for farming and nature protection. Accordingly, farmers and citizens are represented on the board of ANV Maashorstboeren. Oerlemans et al. (2006; 2007) found that around 65% of the ANVs have citizen members.

Figure 3 shows data extracted from the annual reports, complemented by data from the online survey for those groups that participated. Some ANVs mention their membership size and compare it to previous years. ANV Natuurlijk Voorne Putten for instance states that it has 183 members, which is an increase of 9 members compared to last year. However, most annual reports only mention the recent number of members and make no comparison.

	ANV	Year of foundation	Staff	Number of members
1	Gagelvenne	2000	x	45
2	Westellingerwerf	x	x	X
3	Amstel	2001	3	85
4	Fugelfrij	x	x	x
5	t Onderholt	2000	21	540
6	De Bonnen	x	x	x
7	Lingestreek	x	x	232
8	Natuurlijk Voorne Putten	2004	x	183
9	Rivierduingebied	2001	x	47
10	St. Vragenderveen	x	x	400
11	Ploegdriever	2000-2001	x	157
12	Ark en Eemland	2000	x	221
13	Stad&Ommeland	1998	x	x
14	Den Haneker	1994	21	860 - 881
15	Utrechtse Venen	x	x	487
16	Water, Land en Dijken	2008	17	620
17	Maashorst	2002	12	x
18	Lopikerwaard	x	x	278

Figure 3 Data from ANVs on founding year, membership and staff size (data from annual reports and survey, x = missing data)

The analysis of the annual reports shows that most ANVs utilise a working structure of several working groups on different activities. Common are working groups on agricultural management, bird protection, public relations and recreation/public relations. Apart from the board, which may consist of farmers and citizens, ANVs often employ one or more field coordinators that provide assistance to the farmers for the agricultural management contracts. Larger groups tend to employ a higher number of staff.

Annual reports frequently mention the number of volunteers the ANV works with, and what kind of activities and management measures volunteers are involved in. The reports indicate that many of the volunteers ANVs work with are also involved in other groups, such as the Bird Protection Group (see also next section). These volunteers help to discover, count and monitor meadow bird nests. The annual report of Water, Land en Dijken (WLD) states that under the umbrella of both Landscape North-Holland and ANV WLD there are 613 volunteers active in meadow bird protection. The group also organises a basic introduction course for new volunteers. For example, in 2010 a total of 86 people took part in the introductory course.

Group organisational structures

St. Vragenderveen and Ploegdriever have a different organisational structure than the other groups. St. Vragenderveen is a foundation, which has 400 contributors, and undertakes mainly landscape management in the form of a working group. Accordingly, St. Vragenderveen has no members, but contributors and volunteers. However, St. Vragenderveen calls itself an ‘agrarian area management organisation’ in their annual report and aims to harmonise nature management with common agricultural practice. The Ploegdriever calls itself a Landscape Management Association and, according to their annual report, their main activities seem to be focused on landscape management. However, on the ZLTO website Ploegdriever is named an ANV, and in the annual report the Ploegdriever briefly states to support farmers in subsidy requests for agricultural nature management. Ploegdriever and Vragenderveen show difference but also similarities with other ANVs, hence they are included in this analysis. That ANVs differ in organisational structure is an observation supported by Oerlemans et al. (2006). Among ANVs there is much variety in organisational structure. However, all have the aim to contribute in some way or other to the management of nature in agricultural landscapes (‘agricultural nature management’).

ANVs and Cooperation with Partners

The annual reports mention various collaboration efforts with several other organisations, such as the Bird Protection Group, the *Landschapsbeheer* organisations, Game Management Units and Nature Organisations. According to Oerlemans et al. (2001), ANVs tend to have at least 5 collaboration partners, and they conclude that the ANVs’ level of cooperation with other parties is fairly high. Collaboration is regularly mentioned in the annual reports when reporting on management activities or measures. In that sense, cooperation is described implicitly in the annual reports, and not as a particular achievement or in a separate section. A few ANVs mention the collaboration with certain organisations explicitly but describe it as a partnership serving the management activity rather than a distinct achievement or indicator for the success of the ANV.

The **Bird Protection Group** (*Vogelwerkgroep*) is a volunteer organisation, that can be found everywhere in the Netherlands in the shape of local volunteer groups. Usually, these groups volunteer for counting bird nests every season. Almost all ANVs active in bird protection mention this group their annual report. These groups also help the national bird counting, which occurs every three years and is organised by SOVON (www.sovon.nl).

Another organisation that helps with counting of wildlife is the **Game Management Unit** (*Wildbeheer Eenheden*, WBE) (<http://www.knjv.nl/>). The annual report of ANV Lopikerwaard, for instance, states that the WBEs helped with the counting of summer geese in order to find out the total number, the damage by the birds on agricultural crops and the allowable number to be shot. Every Province has their own Fauna Management Team (<http://www.faanabeheereenheid.nl/eenheden/>) which usually organises a yearly fauna counting. The counting is a collaboration of several organisations including the WBEs and the Farmers Representation (LTO).

The **Landscape Management Organisations** (*Landschapsbeheer*) are organisations at the level of the provinces (<http://www.landschapsbeheer.nl/>) that occasionally help ANVs with management activities, such as pruning of trees and hedgerows but also with administrative and organisational issues. For example, ANV de Gagelvenne mentions that Landschapsbeheer Friesland draws up a nature plan (baseline scenario, plus actions how to improve nature quality) for every new member that owns land and wants to become active in agricultural nature management. In the working area



of ANV Rivierduingebied, Landschapsbeheer Flevoland and volunteers assist in the counting of bird nests.

ANVs also manage nature lands of nature organisations such as **State Forestry Services** (Staatsbosbeheer, www.staatsbosbeheer.nl), **Nature Monuments** (Natuurmonumenten, www.natuurmonumenten.nl) and the **Provincial Landscapes** (*Landschappen*, <http://www.de12landschappen.nl/>). One of the ANVs that filled in the online survey mentioned that they collaborate with State Forestry Service in managing a nature area of 2200 ha that lies in the National Ecological Network (an interconnected network of natural areas) with special cows. Along the same line, in their annual report ANV Ploegdriever describe a collaboration with the State Forestry Services to manage rye fields to increase biodiversity.

Maintaining a comprehensive, up to date list of all ANVs is difficult because of the tendency of ANVs to reorganise, merge, and form partnerships. As the research was ongoing, we identified new groups (e.g. that had participated in the online survey) which were not listed on umbrella organisations' websites. During the web search for annual reports, it became clear that some new names were recently established partnerships or mini-umbrella organisation ('groups of groups') of ANVs. These partnerships were not mentioned in any annual report, and therefore this material is included as background information in Annex A, providing insights in the partnerships and their advantages according to the ANVs.

In addition to those initiatives described in the annex, there are several more mini-umbrella organisations and partnerships such as 'Nordlike Friese Wouden'. It seems that all ANVs that are involved in such a partnership appreciate the collaboration and recognise the benefits, e.g. enhanced knowledge exchange, increased influence and efficiency savings by being one contact point for government. As a consequence of this rather new development, management tasks may be shared and carried out at different levels (e.g. monitoring of birds at lowest level, compiling of results in a report at umbrella level).

1.3. Reported Activities and Indicators: Species, Habitat and Landscape Management

Almost all annual reports document the nature and landscape management activities undertaken, but not all documentation is very detailed. Some annual reports only briefly mention the management activities undertaken without much detail on the measures that accompany the activity. Others are more explicit about the measures but less specific on the indicators. Most of the annual reports describe group activities in a qualitative way and are less focused on quantitative indicators. Meadow Bird Protection is an exception where quantitative indicators are widely used.

This section briefly elaborates on the reported nature and landscape management activities, which management measures are undertaken and how the ANVs report on the results, i.e. which indicators they use to monitor the input, output and impact of the measures. For the analysis we have specified what type of indicators is referred to. For example, the area of land entered into a scheme or number of contracts is considered as an **input indicator**, while the size of an area managed for bird protection, number of planted trees, or number of events organised is an **output indicator**. An **impact indicator** (or outcome indicator) would show that a rare species (number of newts) became established after a wetland was created, or that participants of excursions are able to identify more plants or report increased appreciation of the landscape.



A similar distinction is used in the Common Monitoring and Evaluation Framework (CMEF) by the European Union which refers to input, output, result and impact indicators, and in some cases also baseline indicators (EU Directorate General for Agriculture and Rural Development, 2006). We have not adopted the CMEF classification as it was not suitable for our analysis of indicators at the local to regional scale (e.g. the input indicator used by CMEF is always the amount of public expenditure realised (total versus EAFRD)).

1.4.1 Meadow Bird Protection

The main on-going management activity for all 18 ANVs whose reports were analysed is clearly meadow bird¹ protection as most ANVs undertake management actions relating to this activity. For 6 ANVs meadow bird protection seems to be their core activity, i.e. ANV de Amstel, Natuurlijk Voorne Putten, Rivierduingebied, Ark&Eemlandschap, Utrechtse Venen and ANV Lopikerwaard.

The annual reports document different measures that have to be undertaken each season in order to protect meadow birds:

1. Marking bird nests with sticks,
2. Mowing around the sticks,
3. Recording the spatial location of the nests on a map (Figure 6 and 10),
4. Implementing a delayed mowing regime (ANVs receive financial compensation for the loss of supply for cattle fodder),
5. Creating shelter hills and chick strips for young birds (which are small areas of remaining grass in the meadow),
6. Creating wet places on the meadows in order to enhance bird nutrition,
7. Spreading stable manure on the land in order to enhance soil biodiversity which ultimately provides a source of food for the birds.

Some annual reports state that ANVs actively try to counter the predation pressure on meadow birds by removing trees and shrubs around the meadows (e.g. ANV de Amstel), by placing grids to lower the presence of foxes in the area (e.g. ANV Utrechtse Venen), and by collaborating with the Game Management Units to lower fox predation (e.g. Stad en Ommeland). Others leave feed on arable fields, called fodder fields ('voerakkers'), after harvesting in order to increase the availability of food for birds (e.g. ANV Lopikerwaard).

Farmers have the opportunity to enter several kinds of meadow-bird contracts with the Province under SNL (subsidy scheme for nature and landscape conservation) which offers financial compensation for their management activities. The management activity for meadow bird protection is restricted to target areas, called meadow bird areas. There are several packages farmers can choose: **nest protection** and **delayed management** (SNL, 2011). The annual reports of the ANVs frequently document the number of meadow bird contracts that have been made, how many members were involved in meadow bird protection, and how much money is generated through these contracts in total. ANV de Utrechtse Venen for instance mentions that 224 participants take part in the 4431 ha of meadow bird protection, of which 16% (706 ha) is under a delayed mowing regime. These types of indicators can be considered output indicators. ANV de Utrechtse Venen concludes that the above is "a beautiful result".

¹ Meadow birds include species such as Yellow Wagtail, Titlark, Godwits, Lapwing, Little Ringed Plover, Avocet, Tufted Duck, Oyster Catcher, Redshank, Skylark, Black Tern.

Meadow bird protection aims for a mosaic management; a differentiated grassland structure to enhance the survival of young chicks. Annual reports frequently state that the working area of the ANV was split up in several mosaics. Some areas are nest protection areas where the nests are counted and marked, other areas are delayed mowing. As stated in the annual report of ANV Utrechtse Venen, the SNL subsidy requires that tall grass should be left in a space of 50m² around each nest while mowing, so that chicks are protected. Some reports also mention the creation of several other shelter options like chick strips while others include detailed maps of mosaic management undertaken by the groups (Figure 6). A combination of different options can be chosen for delayed moving that all entail different financial compensation ranging from 275 – 1376 Euro per hectare per year (as of 2011, www.portaalnatuurenlanschap.nl).

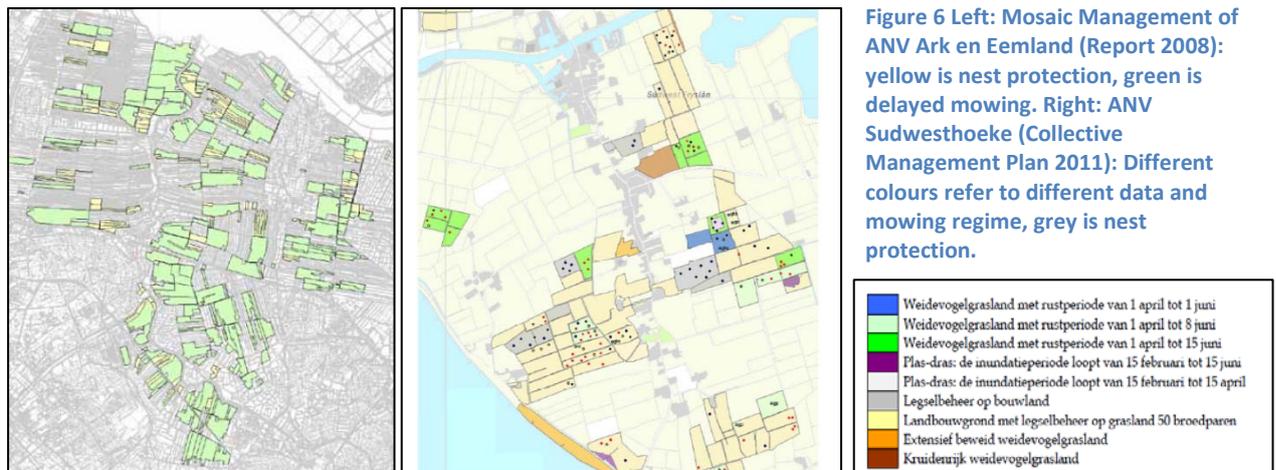


Figure 6 Left: Mosaic Management of ANV Ark en Eemland (Report 2008): yellow is nest protection, green is delayed mowing. Right: ANV Sudwesthoeke (Collective Management Plan 2011): Different colours refer to different data and mowing regime, grey is nest protection.

It is envisioned that the best way to protect meadow birds is through selecting several different mowing options, and combining it with nest protection, i.e. mosaic management (Directie Kennis, 2007). Since the introduction of the subsidy scheme SAN in 2000 many ANVs have started to undertake a form of mosaic management (Directie Kennis, 2007).

Meadow bird areas are divided into both bird protection areas and delayed mowing regime areas. The Bird Protection areas have as a criterion the number of breeding birds per 100 ha. Some annual reports state that new participants are allowed to participate in the meadow bird arrangement when they prove to have a certain number of breeding birds per 100 ha, e.g. ANV Rivierduingebied, Den Haneker (50 birds per 100 ha). This condition is required by the subsidy scheme packages for meadow bird protection. The minimum requirement in the new SNL scheme is 35 breeding birds over six years (Figure 8) where a farmer receives an amount of €69/ha (SNL, 2011). The more breeding birds that can be guaranteed by the farmer, the higher the payment.

With the new subsidy system there is the possibility for farmers to enrol in a last-minute management contract for meadow-birds. This means that if farmers for instance signed a contract with a set mowing date for instance after the first of June, and the farmers observes at the first of June that still birds are breeding, the field coordinator of the ANV can be contacted, who has the authority to prolong the contract deadline, for instance until the 15 of June. This will automatically lead to a higher financial compensation for the farmer. The annual reports from 2010 onwards mention that this type of last-minute management is very advantageous as it fits the daily practice and dynamic condition. ANVs sometimes also mention the number of extra last-minute contracts the

field coordinator made in the reporting year. ANV Utrechtse Venen for instance states that in 2010 28 extra contracts have been set up with 22 participants (of which 19 contracts were on chick strips and 9 on delayed mowing management). Several annual reports dating from after 2010 tend to document the number of extra contracts made under last-minute management (an input indicator).

Another type of nature management measure for meadow bird protection is to create wet places on agricultural fields for meadow birds that are in need of this kind of habitat for food. The financial compensation depends on the time-span during which this wet area is provided to birds.

Three ANVs report on creating and maintaining wet areas on their agricultural fields: Westelingerwerf, Ark & Eemland and Utrechtse Venen. As subsidies are given per ha, the ANVs report on the number of pools they have been managing for the reporting period with the related area, e.g. Utrechtse Venen says to have maintained 6 wet areas of together 12 ha in order to attract meadow birds. This type of indicator can be considered output-oriented. In the annual report of Rivierduingebied some pictures were found of the measure to create wet areas on agricultural land; however there was no documentation on the measure itself (Figure 7).



Figure 7 Wet areas on agricultural land (ANV Rivierduingebied, 2010)

The counting of breeding birds happens nearly every year, and most ANVs report on the number of counted bird nests. Counting and monitoring is undertaken by farmers, volunteers from the Vogelwacht or in a combination. Special maps are provided by ANVs to their members that participate in meadow bird protection: farmers have to mark the location of the nests on the map. In this way the number of breeding birds is monitored, which indicate the ecological impact of the measures, but as well measures if farmers reach the subsidy criterion of x bird nests/100 ha.

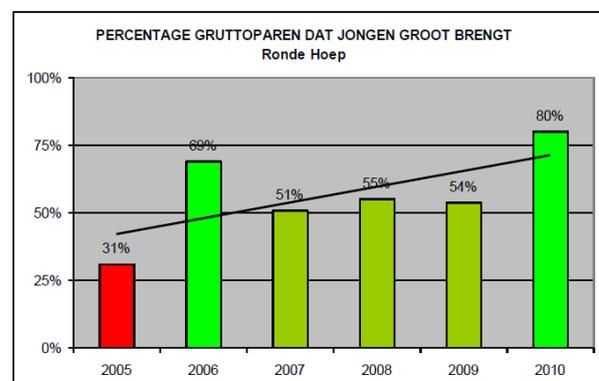
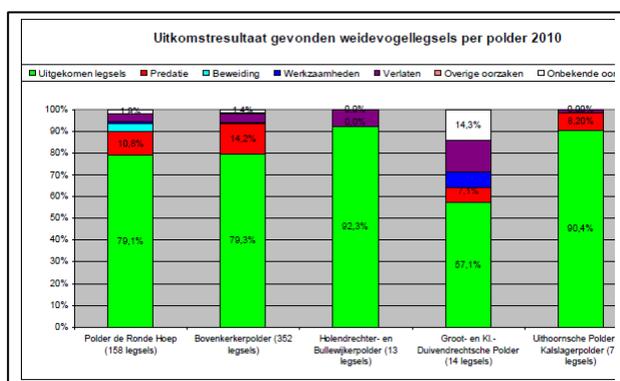


Figure 8 ANV de Amstel – left: % of survived nests per subarea polder (green survived), right: % of breeding black tailed godwit couples with young chick out of egg.

Most annual reports provide the number of species and nests counted, but do not report on further impact indicators for their measures. ANV de Amstel and ANV Rivierduingebied are an exception: they provide detailed pictures and graphs on outcome results per egg, the percentage of breeding birds that were able to breed and get a healthy chick (Figure 8). For Rivierduingebied this can be the case because it was an annual report specifically on bird protection. They stated that they wanted to stay up to date on the population developments in their working area and therefore aspire to compile such a monitoring report every year. Note that the report is prepared by an advisory bureau.

Apart from the yearly counting and monitoring, every 3 years all meadow bird protection areas are evaluated (counted and monitored) by SOVON, with support from the Vogelwacht and ANVs. This is a standardised method which some ANVs also use for their yearly monitoring. The SOVON counting is obligatory in order to receive governmental subsidies (ANV Fugelfrij annual report, 2007).

Specific annual reports

Some ANVs, like Westellingwerf, have a very short annual report (2 pages), that briefly informs about the state of play of the group's activities. In addition, Westellingwerf elaborate more extensively on meadow bird protection in a separate state-of-play report (18 pages) specifically on meadow bird protection which is the main activity of the ANV. This report contains much detail on the number of different breeding birds found in 2011 and also gives an overview of counting results from the previous years. The report employs maps to show the spatial distribution of specific nature management activities such as botanic management, delayed mowing regime, and bird nest protection. Another example of a group that documents the results of their bird management activities in a specific annual report is ANV Santvoorde who stated in the questionnaire that their result and impact indicators are documented in the Report of the Bird Working Group (*Vogelwerkgroep*).

These results show that it is common for ANVs to monitor and record their activity in great detail if they are involved in bird protection programmes. In their annual reports, indicators on input, output and impact concerning the bird protection activities can be identified. ANVs report on the number of extra last-minute contracts made (input), on the number and surface of wet areas that were managed for bird protection (output) and on the number of breeding bird nests (impact). However, there are only a few ANVs that provide more detail on impact indicators, i.e. the breeding success rate or protected bird population over the years. The indicators not only serve to measure the conservation success but they are also used as indication for the success rate of the ANVs to generate funding for their activities.

1.4.2 Geese Management

Seven ANVs document geese management measures undertaken. Geese management means that farmers allow geese to graze on their fields in winter time, but as this reduces the fodder available for cattle, subsidies are available to compensate for the loss of income.

The ANVs do not have specific indicators for this activity. ANVs report on the number of ha under contract (input indicator), e.g. 2000 ha are assigned for geese management from October to April and farmers receive a fixed financial compensation (ANV Den Haneker annual report). ANV t Onderholt mentioned that this arrangement is a good way to compensate for the farmers' loss of income (qualitative impact indicator). Measures to attract geese to the assigned geese areas

(Figure 9) are the provision of nutrient rich grass, leaving harvest remains or spreading green manure on fields (ANV Rivierduingebied, 2010 specifies these output indicators). Overall, geese management is largely a passive management activity. Farmers do not have to undertake many measures in order to protect the geese population.

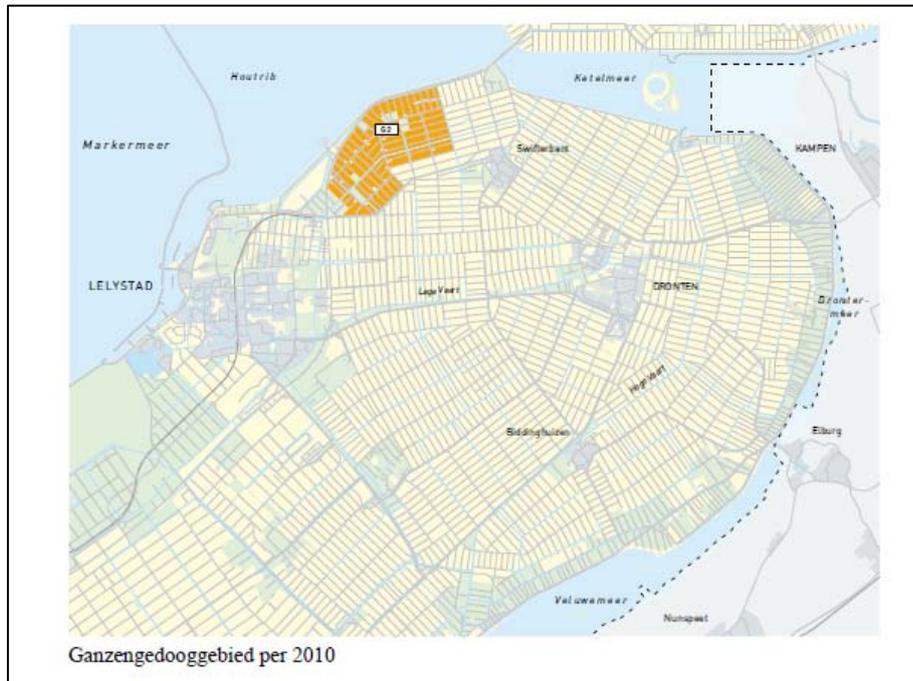


Figure 9 Assigned geese management area (orange) by the Province Flevoland (Rivierduingebied, 2010)

1.4.3 Botanic Grassland Management

Three ANVs mention in their annual reports that they undertake botanical grassland management: ANV Gagelvenne, Fugelvrij and Ploegdriever. In case of the first two ANVs, botanical grassland management is primarily undertaken on the land of their members, and they report on this activity by the number of ha under management (input indicators). In contrast, ANV Ploegdriever reports on the management of 18 ha of dike-grassland (input indicator), owned by the Waterboard ‘Rivierenland’.

Specific measures for this management activity are: no adding of manure to the land, no grazing of animals and frequently mowing of grass and removing the biomass. The management measures for the dike grassland of ANV de Ploegdriever are a combination of sheep grazing, mowing two times a year and manual removal of ragwort. The measures are more or less indications for the output delivered by the ANVs. The ANVs did not document how much of the ragwort was reduced, which plant species they need to maintain or the number of different plant species. Impact indicators for the management activity botanical management could not be found in documentation.

Rather than reporting in a quantitative way, ANVs report on the foreseen impact of the measures in a qualitative way. For example, ANV Fugelvrij reasons that the measures are undertaken in order to enhance plant diversity and the number of species. As stated in the annual report of ANV Ploegdriever, the management measures serve to increase biodiversity and to maintain the dike grasslands “because they are one of the most beautiful and typical grasslands in the Netherlands”. Frequent use is thus made of so-called proxy indicators for the impact of the measures.

1.4.4 Ecological Margin Management

Nine ANVs undertake ecological margin management: ANV Gagelvenne, Westellingerwerf, Rivierduingebied, St. Vragenderveen, Ploegdriever, Ark en Eemlandschap, Den Haneker, Water, Land & Dijken and Lopikerwaard. Two types of ecological margin management can be distinguished: road and field margin management.

Road margin management

Road margin management is a nature management activity that considers botanical management measures of margins along roads. ANV the Ploegdriever, Westellingerwerf, Water, Land & Dijken, and St. Vragenderveen undertake measures on ecological road margin management. As becomes clear from the annual reports, this management activity is usually a service to the municipality as the municipality owns the road margins that are in need of management. The management measures as described in the reports entail a mowing regime of mowing twice per year and removing the biomass (output indicator). ANVs report on the surface (input indicator) they manage and the goal of the measure, namely to increase biodiversity and to maintain the beauty of the grasslands: “Flowering and colourful road margins are attractive to see and good for the diversity of flora and fauna” (St. Vragenderveen, 2011, Water, Land & Dijken, 2010).

Other ANVs are very brief on the documentation of this management activity, covering the kind of activity, the reason for it and what the management measures entail. ANV Westellingerwerf (annual report) states after a meeting with the road margin coordinator that “good results were achieved last year, the managed road margins have a reduced soil fertility and now only need to be mowed once a year”. The impact of the measure is indirectly evaluated: because the soil fertility is now lower, the output indicator (number of mowing turns) can be reduced which indicates “good results”. Apparently, ANV Westellingerwerf has access to monitoring data that record the impact of their measures; however this is only implicitly described in the annual report. No monitoring or recording method or data is documented.

ANV Water, Land en Dijken elaborate on the ecological road margin management and also mention that they undertake special measures for species listed in the National Flora and Fauna Law (transposition of the European Habitat and Bird Directives). However, the exact measures or monitoring method on these species is not mentioned in the annual report.

St. Vragenderveen is most elaborate with respect to this management activity. The Vragenderveen farmers manage 20 ha of road margins (input indicator), which they do to reduce soil fertility (proxy impact indicator) in order to increase plant diversity. To find out if the management activity had any effect, St. Vragenderveen established an inventory on the plant species in 2006 and 2011, and undertook extensive monitoring. A first careful impression is that a few more herbal species have established in the road margins and that weeds such as ragwort and spear thistle did not expand (impact indicator). St. Vragenderveen refer to a separate report for detailed data on the monitoring which they suggest can work as a reference for future management measures. St. Vragenderveen is an example of a group that in their annual report indicates to monitor their measures in order to enhance their activities.

The documentation of the ANVs that undertake road margin management is mainly focused on input and output indicators. Apart from that, documentation on the management activity remains very general. Occasionally, it can be interpreted from the annual reports that ANVs have access to or record on impact monitoring data. Detailed information on impact indicators and results is normally

not listed in the annual reports. Although St. Vragenderveen is more specific on this management activity in terms of impact of their measures, the monitoring data are not presented in the annual report, but in another specific report.

Field margin management

Field management considers botanical management measures along arable and grassland field margins. The annual reports of ANV Gagelvenne, Rivierduingebied, Ploegdriever, Ark en Eemlandschap, and Den Haneker imply that these groups are undertaking field margin management in order to increase species diversity.

The amount of detail provided varies between groups. ANV Den Haneker merely indicates that a lot of people are enthusiastic about this activity but that the subsidies do not offer enough money to satisfy the interest, even if the margins were located in a high nature value zone. ANV Gagelvenne is also brief: the report states that farmers have to fill in a registration form in order to monitor the progress of the management measures, and that these results are checked and monitored once more by an Examination Committee of the ANV. It seems that ANV Gagelvenne organises some internal control to evaluate the impact of the management measures but impact indicators and results are not presented in the annual report. ANV Ploegdriever is also brief about this management activity. The annual report gives further details on the management measures, especially on the multiple reasons for the undertaken measures:

“Around 2 ha of arable field margins are sown with flowers and plants that look beautiful in summer. In winter the vegetation strips are not mowed and offer shelter for animals and insects. Apart from an increase in biodiversity, these margins reduce the risk of erosion those margins that lie on a slope.”

Meer dan 1% gevonden		Minder dan 1% gevonden		Niet gevonden
Soort	Percentage	Soort	Percentage	Soort
Boterbloem	20,8	Penningkruid	0,96	Blauwe knoop
Veldzuring	16,48	Wederik	0,96	Ganzerik
Pinksterbloem	12,16	Ereprijs	0,8	Gele morgenster
Vergeet-mij-nietje	9,12	Kale Jonker	0,8	Havikskruid
Gele lis	6,56	Blauw glidkruid	0,48	Hazepootje
Wolfspoot	6,56	Kattenstaart	0,48	Heelblaadjes
Walstro	4,96	Dotterbloem	0,32	Kamgras
Andere verg. soorten	4,32	Lathyrus	0,32	Klokje
Rolklaver	3,2	Brunel	0,16	Knoopkruid
Echte koekoeksbloem	2,24	Gevl. hertshooi	0,16	Margriet
Moerasspirea	2,08	Munt	0,16	Streepzaad
Sint-Janskruid	1,6	Ratelaar	0,16	Tijm
Tweerijige zegge	1,44	Waterkruiskruid	0,16	Vogelpootje
Reukgras	1,12	Waterpunge	0,16	Waternavel
Waterpepe	1,12	Wondklaver	0,16	Wikke
				Wilde bertram
				Wilde peen
				Zandblauwtje

Tabel 4 - Percentages van de gevonden plantensoorten in de meetvakken.

Figure 10 Ark en Eemlandschap: plant species result of monitoring in calculation grids



The annual report does not reveal whether ANV Ploegdriever checks or monitors the impact of the measures, e.g. if the measures indeed increase biodiversity or reduce erosion. The annual reports thus most often describe what is being managed (input), the measures that are implemented (output), and the benefit or impact that is expected to occur based on assumptions about causal relations (proxy indicator).

Ark en Eemlandschap is most elaborate on this management activity, especially on the monitoring method and the impact of the management measures. In 2008, the ANV managed around 37 ha (input indicator) of ecological field margins, which they state is to enhance biodiversity (proxy impact indicator). In order to measure this, the ANV monitors plant species in special calculation grids: one calculation grid of 100m² per 1 km. In 2008, monitoring was done in 249 calculation grids, undertaken by special controllers of the ANV, with assistance of the water board and an advisory agency. Figure 10 is taken from the ANV's annual report, of which the left column present plant species found most often (more than 1%), the middle column are plant species found less than 1% and the right column are plant species that were not found. This monitoring activity is carried out every year, therefore we assume that the ANV has an overview of the impact of their management measures over a time span of several years. The annual report, however, only documents the percentages of the number of plant species monitored in the reporting year, rather than over several years.

Several ANVs are involved in pilot projects or research projects to investigate particular management activities or the relationship between biodiversity and farming (Annex B).

1.4.5 Landscape Management – Maintenance and Restoration

Landscape Management is about restoring and maintaining landscape elements such as hedgerows, pools and creeks. Seven ANVs undertake some form of landscape management, of which the pruning of willows and hedgerows are the most common maintenance measures. For ANV Ploegdriever and Vragenderveen, landscape management seems to be their core management activity. Both groups undertake landscape management measures at the request of other parties, such as municipalities or water boards. Apart from conserving existing landscape elements, some ANVs are actively engaged in the restoration of landscape elements and nature areas, i.e. ANV Water, Land & Dijken, Maashorst, Ploegdriever and t'Onderholt. Again, the level of detail provided varies between the reports.

Water, Land en Dijken (WLD) merely reports that in 2010, 20 applications (input indicator) for reed bank restoration were submitted to the Province. They consider reeds an important element of the North-Holland landscape and that it is valuable to flora and fauna (proxy impact indicator).

The annual report of the Ploegdriever mentions that the ANV manages an area of 12 ha (input indicator) that consists of hedgerows and shrubs, which are pruned (output indicator). Apart from that, Ploegdriever restored several landscape elements along a hiking route i.e. planting of 760 metres of hedges and 100 pieces of willows (output indicator), and restored some meadows with landscape elements: hedges (465 meters), fruit trees (19 trees), and the cleaning of water ditches and pools (output indicators). Elsewhere, the Ploegdriever carried out thinning of woodlands (output indicator). All these management measures were carried out based on requests by municipalities, water boards, or NGOs. Management measures are listed and described in detail but the report contains no evidence that the ANV monitors the impact.

Other ANVs briefly state the purpose of the management activity: “The aim of the working group agricultural nature management (‘sawing group’) is to fulfil a role at the maintenance and restoration of landscape elements in light of the stimulation framework²” (ANV Maashorstboeren). Maashorstboeren is not the only group that maintains the landscape with a special working group (in this case the ‘sawing group’). For example, ANV Onderholt’s working group has planted 200 ha of shrubs and hedgerows along with 50 ha of fruit trees, maintained 75 water pools, and restored 100 km of wooden fences (Figure 11). While these s indicator are documented in annual report, impact indicators are not mentioned.



Figure 11 Wooden fence maintained by ANV Onderholt (annual report Onderholt, 2011)

Although the report of ANV Gagelvenne (1993-2003) only briefly mentions their activities in landscape management it informs about an external committee that monitors the effects of the nature policy plans of their members. It appears that the impact of landscape management measures is being monitored but no concrete data on impact or monitoring methods is included in the report.

St. Vragenderveen was commissioned by the Water Board to maintain creeks and vegetation along the creeks. The exact measures are not specified in the annual report but it states that the ANV’s working group is able to do this management cheaper than the water board, the management serves as a complementary income for the farmers, and it enhances local support and attractiveness of the area.

Overall, ANVs tend to report distinctly on their landscape management activities – apart from with respect to impact. Some reports are brief, others more elaborate. They document mainly on output indicators, while impact indicators are rarely mentioned. It seems that ANVs or their working groups expect or assume that the measures undertaken will ultimately benefit both landscape and biodiversity (proxy indicator). Monitoring to assess the impact of these measures seems lacking. Some ANVs get their financial means from the landowners that request these management measures, i.e. municipality, water board. Others make use of a subsidy scheme, which can be SNL, STIKA or even Green and Blue Services.

1.4.6 Owl, Swallow and Farm Bird protection

In addition to meadow bird protection and geese management, some ANVs are active in the protection of so-called farm birds such as swallows and owls. For example, ANV Onderholt – with the support of IVN and Bird Working Groups – set up 160 little owl boxes, 60 barn owl boxes and 40 kestrel boxes (output indicator) in 2000. Since then, a group of volunteers frequently monitors the occupation of these boxes, and records their data in the SOVON counting tables. The group also cleans and repairs the boxes, and rings the new born chicks (output indicators). As a result, the

² The Stimulation Framework is a provincial subsidy scheme of North Brabant that aims to support the maintenance and restoration of landscape elements. From experience of the author (de Lijster) the scheme seems very popular among farmers and ANVs. See also <http://www.brabant.nl/dossiers/dossiers-op-thema/natuur-en-landschap/groenloket/groen-blauw-stimuleringskader.aspx>

group made the observation from the SOVON counting maps that the national focal area of breeding owls lies in their working area – which is presented with pride. Onderholt gives “counting is knowing” as the reason for monitoring these bird populations. They are confident in the impact of their activities:

“if we consider that about half of the little owl boxes is occupied and that per box on average 2 to 3 chicks are being delivered, that means the project has had an impact of more than 1000 chicks over the last 10 years!” (annual report Onderholt 2011)

ANV Rivierduingebied states that they have monitored the nest population of swallows for the fourth time. The monitoring has been an ongoing activity since 2005. Monitoring is done every year by a fixed group of volunteers. The ANV offers a small payment to the farmers for each nest found. These payments are not sourced from government subsidies but from the ANV’s own funds. The report claims that the financial compensation is a good way to monitor the population development. It includes a table of number of counted swallow species per year on each member’s farm, the breeding success of owls and other birds of prey (impact indicator), how many new born chicks were ringed, and construction of storck nests (Figure 12; output indicator). The report also informs more generally on the state of birds and which management activities were undertaken through a collaborative effort of different organisations (e.g. State Forestry Service, *Landschapsbeheer*, Bird Protection Group) rather activities of the ANV alone.



Figure 12 left: placing of stork nest, right: storks with chick occupying the nest a few weeks later (impact indicator). (Rivierduingebied, 2011)

De Utrechtse Venen is active in two projects to protect the black tern and the swallow. The ANV states that the breeding population of the black tern has increased with 7% compared to the previous year (impact indicator). In total 189 black tern couples (impact indicator) were breeding in the working area. The report details how many rafts were placed in and along water banks (output indicator) and how many of these locations were occupied with breeding tern couples (impact). The group also knows that 189 of the 225 eggs hatched successfully (impact indicator). These figures are important as almost 10% of the European black tern population lives in their working area of the ANV. Not without pride does the report note the number of tern couples breeding in the area increased from 68 before the project to 189 couples by 2010 (impact). The group is ambitious and proud of their success: “only 11 couples away from the agreed target with the Province” (annual report De Utrechtse Venen, 2010).



1.4. Reported Activities and Indicators: Recreation, Education and Innovation

This section outlines how ANVs report on recreation, education and innovation activities they carry out. The analysis has a particular focus on which type of indicators is referred to, i.e. input, output and impact indicators. For a brief overview of the types of indicators see Section 1.4.

1.5.1 Recreation

Most ANVs are active in recreational activities. ANVs offer and actively establish walking and biking trails in order to enhance access to the rural countryside for citizens. In addition, excursions are organised for non-members to promote the activities and successes of the ANV. The following section outlines examples from the annual reports.

ANV Westellingewerf placed big poster frames in the agricultural fields to attract attention and inform passing cyclists and hikers about agricultural nature management and the farm itself. The activity was linked to an organised hiking day: 'Pieter Stuyvesant Kuintocht'.

ANV de Amstel organised several polder tours and excursions to watch meadow birds, and placed several information poster frames in their polders. The annual report states that the tours were a great success but provides neither numbers of tours nor number of participants. Similar detail is reported by ANV de Bonnen who report that several guides were present at the organised farm excursion but that there were not so many people. The number of people attending is an implicit evaluation of the success of the open days. ANV Natuurlijk Voorne Putten organised a meadow-bird excursion for members and non-members for the fourth time (output). The group consisted of 15 persons, and during the excursion they found several nests. Natuurlijk Voorne Putten also has an active working group on Agrotourism that organises attendance at regional markets (8 markets, output indicator), and annually produce the 'green map' (output) containing cycling routes in the area (2010).

Stichting Vragenderveen worked with volunteers to establish 5 walking tracks of a total length of 55 km (output) including signs along the route to inform hikers on native flora and fauna (output). They hope to enhance access for people into the area and to strengthen the connections to the cultural landscape (proxy indicator). The reporting of other ANVs follows a similar pattern (ANV Ark en Eemland, ANV Utrechtse Venen, ANV de Maashorstboeren)

ANV den Haneker also uses proxy indicators. By publishing a leaflet, improving their website, organising workshops, attending regional markets to promote their activities, promoting camp facilities and producing sustainable sun energy for tourists during their stay (output indicators) they hope to contribute to their stated aims:

- Professionalise tourism and recreation
- Connect tourism and regional products
- Improve touristic facilities and offer good quality

ANV Water, Land en Dijken published a touristic map with all cycling, hiking and boat routes with different activities at the countryside (output) which they had to reprint halfway through the season (impact). This indicates that this kind of material is in high demand and is likely to promote visitors to the area. The ANV complements the map by actively approaching farmers to explore interest in establishing 'rest points' for visitors at the farms. Farmers were enthusiastic and 30 rest points will



be realised (output). Open Days were judged to be a big success and further enhance understanding between farmers and citizens (impact).

In general, the focus of reporting on recreational activities is on a description of activities (output) rather than on the effect of what has been done (impact or outcome). Documentation is mainly qualitative with descriptions such as “it was a success”, “successful day”, “many enthusiastic people”, “good reactions”. Occasionally input and output indicators are used, e.g. the length of hiking routes, the number of maps printed, the number of picnic tables, which ultimately serve as proxy indicators to assess the expected effect of the measures such as enhancing access and attracting tourists. Note that the number of visitors can be an impact indicator in the sense that the group was successful because through the event they reached a target audience. It could also be an output indicator, because the impact might be measured by assessing how much the participants learned about meadow birds, how many new contacts were made, or how many new members joined as a result of the event.

1.5.2 Education

ANVs are very active in educational activities. A distinction can be made between internal and external education. Internal education comprises for instance workshops and excursions organised for their members to enhance knowledge and skills. External education includes workshops and educational programmes organised for people to learn more about the farm system and agricultural nature management.

Internal education

Among internal education activities are

- Excursions and workshops for members (output) to enhance plant identification skills, “to increase plant diversity” and even to enhance capacity to influence the subsidy goals set for botanical diversity (proxy indicator) (ANV Gagelvenne, ANV Fugelfrij).
- Workshops on bird and nest identification skills (output) for 40 participants (impact) (ANV Utrechtse Venen).
- Information evenings (output) about energy reduction and solar energy at farms (ANV Water, Land en Dijken).
- The coordination of information on subsidy possibilities (working group of ANV de Ploegdriever).
- The participation in a network event to increase their knowledge exchange with other ANVs (ANV Stad en Ommeland).

Documentation on these activities is meant to be informative rather than evaluative. Therefore documentation remains general and output-oriented, as activities are summed up without any evaluation or use of impact indicators.

External education

External education often takes place in the form of educational programmes for schools at the farms and is characterised by cooperation with schools, education centres and environment centres (Figure 13). Five ANVs undertake educational programmes for schools: De Bonnen, Natuurlijk Voorne Putten, Ark en Eemland, Den Haneker and Water, Land & Dijken.

De Bonnen reports that one member hosted two school classes and one youth soccer team at the farm. The annual report states that pupils, parents and staff considered the programme as very successful to let children experience classes such as biology and geography in practice at the farm.

ANV Voorne Putten hosted school classes at the farm to teach them about meadow birds, soil biodiversity and the farm system. The annual report states that reactions of the pupils and schools are very positive, and that schools themselves approach the ANV to take part in the educational programmes. Due to increasing demand, the ANV decided to diversify their school educational programmes with different themes such as 'Excursion Dairy Farming' or 'Landscape Management Activities, e.g. pruning of willows'.

ANV Ark en Eemland (in 2008) have set an ambitious goal of 60 school classes visiting a farm by 2010. It is likely that this will be monitored and reported on in future annual reports.

ANV Den Haneker reports very extensively and detailed about their educational programmes and facilities which they also publish on their website. Since 1997 ANV the Haneker is active in educational activities in order to promote the region, the nature and agricultural sector. A precise aim is to let children experience where their food comes from. For 2011 the ANV reports the following numbers visiting farms:

- 387 pupils from 18 classes from 8 different primary schools (impact)
- 194 pupils from 8 classes from secondary education (impact)

Further impact indicators include feedback from hosting farmers, children and teachers. For example, teachers report that children learn better after practical examples, and the group processes at the farm education is beneficial for children. ANV WLD describes the project as successful, as easily demonstrated when teachers immediately sign up for the following year (impact).



Figure 13 On-farm educational programme (ANV Water, Land en Dijken, annual report)

Overall, many ANVs report on the number of classes and pupils who visit farms (quantitative output indicators) and use this as an indicator of success. In addition, qualitative impact indicators are frequently mentioned such as "people were enthusiastic", "more schools sign up for next year".

1.5.3 Innovation

ANVs are also active in innovative activities such as biomass energy conversion, and conversion of manure or vegetation into biogas.

For instance, ANV Ploegdriever initiated with LTO Noord a pilot project for converting biomass from landscape management into bio-energy. ANV Stad en Ommeland is orienting itself on how to convert manure into biogas. Den Haneker has a special energy working group that focused on the project: 'My Roof Your Roof'. Within this project farmers and citizens invest both in solar energy cells at farm roofs. The idea is that everyone gets their share of green energy. Five farmers of ANV Water, Land en Dijken convert biomass into compost, which is beneficial for grassland, soil biodiversity and meadow birds (proxy impact). In 2010, 2812 metric tonnes was converted (output). ANV Water,

Land en Dijken is also exploring ways to reduce energy, therefore a research bureau undertook 71 energy scans among the members and produced advice on how to reduce energy on the farms. Also in 2009, a biogas installation was built at the farm of one of their members. Results are not yet good, because manure composition tends to vary. Technical knowledge is therefore needed.

Innovation by ANVs is thus about how to make energy use more efficient and more sustainable. Cooperation is undertaken with other parties and with citizens from the region. Documentation focuses on input and output indicators when describing the activities.

1.5. Financial Aspects: Costs and Funding

The documentation of financial status and other financial aspects in annual reports tends to be of marginal importance. Of the 18 annual reports analysed, only five present their financial balance or other financial aspects, i.e. ANV de Amstel, Ploegdriever, Ark en Eemlandschap, Den Haneker, and Utrechtse Venen. The documentation of finances always considers only the reporting year.

ANV de Ploegdriever addresses the financial aspect at the end of their annual report, distinguishing between revenues from subsidies and from their own projects. They estimate that the group generates around €100.000 - €150.000 of subsidies per year for their members. As regards the revenues of the projects, a total of €119.000 is generated, of which 84% goes directly to their members. We assume that the rest of the revenues (16%) are organisational and administrative expenses although this is not explicitly stated. The financial section also specifies which management activities account for how many per cent of the total revenues. Figure 14 is an excerpt of information from Ploegdriever's annual report. For example, on-going management measures such as pruning and mowing account for 40% of the revenues over 2009. No further detail is provided in the report on costs for running the group.

Project	Number	Contribution of revenues in %	Measures
Management	12	40	Pruning, mowing, etc.
Providing advice	9	17	Producing plans for nature areas, subsidies
Restoration of landscape elements	13	43	Planting, placing grids, etc.

Figure 14 Specification of revenue sources of ANV Ploegdriever (annual report)

In contrast, ANV de Amstel and Utrechtse Venen present an extensive financial balance in their annual report. Revenues are earned from different sources (Figure 15). Other ANVs divide the structure of the annual report in a technical and financial report. ANV Water, Land and Dijken published an extensive annual report over 2010, with a brief sketch of the financial situation and a list of sponsors including National Landscapes, Provinces, Ministry, Water Board, City District, Municipality, private foundations and donations. The annual report refers to the financial report of 2010 which, however, could not be found online.

ANV Den Haneker also has separate financial reports but endeavours to place them on the website as soon as they become available (as noted by the treasurer in the annual report). The financial

report 2011 is a one-page document detailing the sources of revenues and the expenses of the ANV over the year (Figure 15).

Utrechtse Venen (annual report)	ANV de Amstel (annual report)	ANV Den Haneker (financial report)
Revenues		
Contributions from members (487 members) €11.890	Contributions from members (85 members) €2750	Membership fee (870 members) €26.480
Subsidies for projects €10.059	Interest of the bank €1381	Sponsors € 3525
Profit of projects €7.100	Subsidy for organisational expenses €7545	Working groups € 5848
Interest of the bank €430	<i>Break-down by subject:</i>	Other revenues ³ € 1569
Subsidy for organisational/ administrative tasks €118.530	<i>organisation, nature management, nature reserve management, landscape elements</i>	
Expenses		
Organisational subsidy documented as 1. Preparation costs, 2. Field coordination and 3. Organisational costs	Organisational cost ⁴ break down: Board work (€9654) Field work (€21929) Secretary (€4900) Overhead expenses (€8733) Printing (€2067) Accountant (€3570)	Organisational costs break down: Staff expenses (€8.828) Rent (€6000) General costs (€5413) Working groups/projects (€1672)

Figure 15 Breakdown of income and expenditure in the reports of Utrechtse Venen, ANV de Amstel, ANV Den Haneker

There is evidence from the annual reports and from interviews carried out by the author (de Lijster) with another ANV (ANV de Parmey) that some ANVs deduct a share of the available income for nature management (e.g. ANV de Amstel € 84.165) which is then paid out again (€56.512). We assume (as this is not explicitly stated in the report but the author, de Lijster, was told this was how other groups handled it) this is paid out to group members in order to maintain control on the results achieved through nature management activities. If good results are achieved, members are repaid a higher share. ANV de Parmey ask for a higher membership fee, and if members produce good results some of this money is paid out, ultimately reducing the (original) membership fee. This financial incentive can be beneficial to obtain good nature results.

Some ANVs use financial incentives for collecting points, the so-called point stimulation system. ANV de Gagelvenne cooperated with the Centre of Agriculture and Environment (CLM) to design a point-system to incentivise farmers to obtain better results in nature management. Every year farmers

³ Den Haneker does not include the subsidy stream for SNL in their financial balance sheet as these are financial streams that go directly to the members.

⁴ According to the report, organisational costs were very high that year, especially for the field work. These high costs are assigned to the 3-year obligatory monitoring of SOVON that made the field works costs very high.

need to record the results they obtained in a special registration form. The results are linked to a valuation system. Depending on the results obtained, a certain amount of points can be achieved, which results in a financial reward given by the ANV.

Regional Funds

An innovative idea for generating revenue is the creation of Regional Funds for the benefit of ANVs. Most ANVs depend upon the provincial subsidies ‘*Subsidie Natuur- en Landschapsbeheer*’ (Subsidy Nature and Landscape Management’). Additionally, some ANVs established a Foundation or Cooperation that manages a so-called regional fund. As stated in the annual report, ANV de Amstel created the ‘Amstelland Fund’. Companies that want to support the ANV Amstel can nominate ‘Amstelland Fund’ on the voucher with each money transfer. In that way, for each money transfer, the Rabobank deposits 0,5% of the interest rate in the account of ANV de Amstel.

None of the other annual reports document this type of private-public cooperation. However, this does not mean they do not make use of this type of cooperation. For example, information on the website of ANV Ark en Eemlandscap indicated that in 2003 the ANV created a regional landscape fund called *Stichting Landschapsfond Eem en Vallei* (<http://www.jeev.nl>) in collaboration with National Landscape ‘Arkemheen Eemland’. The funds raised from the private and public purse are now used to pay for the management of several routes in the country side, pruning and maintenance, as well as education and recreation. In 2011, ANV Vechtvallei created a so-called Landscape Fund *Landschapsfonds Vechtvallei* in cooperation with the regional LTO. The Funds is managed by the Foundation Landschapsfonds Vechtvallei.

It is evident from the analysis that the majority of groups provides no information on finances in their annual reports. Those that provide financial information structure its presentation differently. In addition, they use a different breakdown of their income and expenditure as the three examples in Figure 15 show. This makes it very difficult to compare these sections based on the data in reports alone – an interpretation by the treasurer or other board member seems is necessary. Comparing overall volume may give an impression of the ANV’s volume of activities – which tends to be larger in bigger groups – but is very limited in other regards. For example, some ANVs include subsidy streams while others do not. The volume of funding generated can be used as a proxy indicator for the amount of work undertaken in the landscape and ultimately, the contribution to sustainable landscape management, but none of the investigated groups alluded to this connection.

In general, the reports show that ANVs have revenues coming from subsidies, membership fees, projects and sponsors. Subsidies for management activities are channelled through the Provinces under the SNL scheme. According to Oerlemans et al. (2001), almost all ANVs were able to apply for agricultural nature management subsidies in 2001, and in 96% of the areas where ANVs were active, ANVs were eligible to receive subsidies. In addition, the Provinces offer subsidies for organisational costs. A distinction is made between regular ANV organisational tasks and the Field Coordinator (IPO, 2009; see Section 3 for more explanation). In addition, innovative activities such as landscape funds provide funding for group activities.

2. Documentation produced by ANVs – Websites, Newsletters and other Documents

ANVs tend to use various sources of media to disseminate relevant information. Rather than condensing all information in an annual report, information is frequently published on the group website or disseminated in the form of periodic newsletters to their members.

More than half of the Dutch ANVs have a website: 83 out of 153 groups (57%). Fewer of the ANVs in the North of the Netherlands have a websites compared to ANVs elsewhere (19 of 53 ANVs, 35%). However, the mini-umbrella organisations like Nordlike Friese Wouden (which represent 6 ANVs) have an umbrella website. In the South of the Netherlands and in the West of the Netherlands, the majority of ANVs maintains a website: South (24 of 31, 77%) and West (25 of 33, 75%). ANVs in the East of the Netherlands are intermediate: 17 ANVs of the 30 ANVs have websites (56%).

This section briefly reviews and compares some of these alternative documentation sources produced by ANVs, i.e. websites, newsletters and vision documents. Concerning the websites, eight ANV websites were analysed; two ANVs per regions. The material was chosen during the web search for annual reports, and checked whether it was up-to-date.

2.1. Websites

Websites of ANVs in general contain a lot of up-to-date information about ongoing management activities, issues around management measures, news on policy changes, recreation, education and the board and membership structure. The information posted on the website tends to be more detailed and current than the annual reports. Small reports, documents, newsletters, and stories are posted on the website and document the activities undertaken. The analysed websites are from ANV: Wierde en Dijk, Zuid-Westerkwartier, Vechtvallei, Wijk en Wouden, Camperland, Hooltwark, Drimmelen and Altena Biesbosch, all of which do not provide an annual report online.

In general the websites of the ANVS are set up with the following headings:

- About the ANV: year of foundation, members, board, goal
- Nature Management/ Projects: management activities and measures
- Recreation/ Education: which activities, information like routes, leaflets
- Links/ Extra info
- News(letters): Articles and Newsletters (for downloaded)
- Agenda: different events announced by the ANV (e.g. annual meeting) and recreational (e.g. Open Days)

About the ANV

On the websites, most ANVs elaborate on their membership, not only by mentioning the number, but also the membership composition, mainly farmers and citizens. ANV Wijk en Wouden states explicitly that the mix of farmers and citizens is very much appreciated and valued as an advantage because it enhances mutual understanding and support. Figure 16 is a compilation of data from the websites of the ANVs concerning their organisation (complemented with data from the online survey).

ANV	Founding year	Number of members	Working area (in ha)
Wijk en Wouden	1997	307	7000
Vechtvallei	1998	n/a	6500
Camperland	2005	160	n/a
Hooftwark	2006	n/a	n/a
Wierde en Dijk	1999	250	20000
Zuidelijk Westkwartier	n/a	250	n/a
Drimmelen	2003	170	n/a
Altena Biesbosch	2006	200	3000

Figure 16 Data from ANV websites, complemented with data from online survey (in grey); n/a = not available

Management activities, measures and indicators

All ANVs describe their nature management activities on their website in detail which correspond to the main activities documented in annual reports (see Section 1.4):

- Meadow bird protection
- Geese Management
- Botanic Grassland Management
- Ecological margin management (road and field margin management)
- Landscape Management
- Reed management and protection

The management measures for the activities above are not described in as much detail as in the annual reports. Interestingly, all websites are similar in that they broadly describe the kind of measures groups undertake, what the measures mean, how they work and what they are intended



Figure 17 left: road margins management (ANV Zuid Westerkwartier), right: field margins ANV Vechtvallei (websites 2011)

to achieve. Pictures and photographs are a popular means of communication (Figure 17). Sometimes input indicators, such as the number of contracts and area under contract is mentioned but overall, documentation of activities and achievements remains qualitative in nature and few impact indicators are presented on the websites. In this respect, annual reports provide much more information on indicators used, and results and impact achieved.

An exception is those ANVs that are involved in meadow bird protection. ANV Camperland for instance, report that 80 farmers (input indicator) participate in meadow bird protection. Common measures are delayed mowing and nest protection (output indicator). In 2010, 400 ha were under



contract (input indicator) for meadow bird protection and 1300 lapwing nests, 400 black-tailed godwit nests, 225 redshank and 60 curlew nests were counted (impact indicator). It can be concluded that ANV Camperland undertakes monitoring to some extent and reports on impact indicators. ANV Camperland works with volunteers and with the Game Management Unit to regulate fox and crow predation.

ANV Wierde en Dijk is posting stories of people that went on monitoring excursions to count different birds and other animal species present at the fields and surroundings. It can thus be assumed that some monitoring is undertaken, although they do not explicitly describe it as such. In very few cases, ANVs report on their measures using impact indicators. This resembles the general trend in annual reports: input and output indicators are more commonly used than impact indicators.

Recreation and education

Apart from nature management, ANVs are active in recreation and education activities, as was evident from the annual reports (Section 1.5). Of the eight ANVs, seven give attention to recreation and education on their website. They provide a lot of information such as routes for walking trails, education programmes, and the aims of recreational and educational activities. The information is generally qualitative in nature.

For example, ANV Wijk en Wouden state that they actively aim to enlarge the network of walking trails in the surroundings which they consider as important as “it brings farmers and citizens closer together”. Several walking routes and descriptions of the several landscapes are posted on the website to inform people who are interested in walking or hiking. In addition to the walking trails, regional food recipes are posted and a regional agenda informs about recreational and educational events such as Open Days at the farm or Bird Excursions.

Similar to ANV Wijk en Wouden, ANV Altena Biesbosch promotes tracks for walking and horse riding, and actively collaborates with their members to establish new tracks, i.e. members are called up at the website to participate. ANV de Vechtvallei uses the following indicators to illustrate the level of their activities: establishment of 2 cycling trails along farms including downloadable leaflet and map, and production of several audio-stories for download so people can listen to them while visiting the area. Farm education is organised on 14 farms, with 250 primary school classes (output indicator) visiting farms in 2010/2011, and the result that “they were all very enthusiastic” (impact indicator).

Overall, websites serve the purpose of informing the public of activities and schedules with little use of impact indicators to measure whether the recreational or educational activities have had an impact, e.g. do people learn more, or do people participate more in walking. Documentation remains qualitative, e.g. “we work towards the establishment for more hiking trails”.

2.2. Newsletters

During the internet search of all Dutch ANVs for the annual reports it became clear that newsletters are a frequently used tool to disperse information to the ANV members. The majority of ANVs publish these newsletters online. The newsletters inform the members about activities that have been undertaken, what activities are planned, and about policy changes that concern their future activities. Three newsletters from ANV Zuid-Westerkwartier (March 2012), ANV Camperland (March 2012) and ANV Drimmelen (Autumn 2011) was analysed.



The newsletter of ANV Zuid-Westerkwartier contains 4 pages and is very diverse in the information it offers. The newsletter informs members about the changing subsidy rules for geese management and for agricultural nature management. The agenda for the annual meeting is announced. Although the annual and financial report is to be discussed, no annual report was found online at time at the search (March 2012). Furthermore, events such as a regional market are promoted and an article details the support that the ANV can offer to their members regarding the new subsidy schemes.

The newsletter of ANV Camperland (3 pages) likewise announces their annual meeting. The newsletter reports on the ongoing construction and landscape management activities of the ANV, i.e. construction of a nature area and pruning of hedgerows. Members are advised on the change of the old (SAN) to the new subsidy scheme (SNL) and that “all old contracts could be transferred to the new subsidy scheme, and currently 510 ha are under meadow bird contract for an annual compensation of €480.000” (input indicator). This quote can also be considered as an impact indicator if the focus is on the economic situation of the farmers because almost all eligible areas are could be supported financially.

In a similar way, ANV Drimmelen reports that 277 ha are managed for meadow birds and 26 ha for arable fields (input indicator). In addition, the Farm Swallow project is evaluated and considered successful: in total 30 farms participated and made their barns swallow-friendly; established mud pools and improved the availability of nest locations. Although no concrete numbers are provided the newsletter states that the swallow population is increasing steadily. A small bridge, fences and picnic tables were constructed with funding from the Province for walking trails. Lastly, the Flower Margin Management Activity is evaluated in the newsletter, stating that because of dry weather, the seeds did not sprout as abundantly as last year, and that with the second attempt to sow flower seeds, weeds were already numerous. Although this is not part of a concrete evaluation effort the observations are still relevant, since after the observation the group started a knowledge exchange with farmers from the Hoeksche Waard to improve their own management measures.

The newsletters tend to be very diverse in the information they offer. It ranges from policy changes to concrete management activities. No detailed evaluation or indicators are presented.

2.3. Vision Documents

In addition to websites and newsletters, several ANVs compile information on achievements, results of management activities and indicators in so-called vision documents. As an example, the vision document of ANV Ommermarke (2012) was analysed to give an impression on what is documented.

The vision document has a length of 20 pages and is meant to give insight into the goals of the ANV and to attract more members (Figure 18). The vision document includes information on the organisational structure, the target group (members), the history of the ANV, focal points, approach, recent activities and ambitions for the future.

ANV Ommermarke was founded in 1994 when, as a consequence of the acidification of landscape elements, economic agricultural development was restricted. The reaction of farmers was a proposal that they would work together to improve these landscape elements and show ways forward how both agriculture and nature could be developed while making regulatory approaches unnecessary. The achievements to date are summed up in the vision document: native plant and tree species have been established and maintained on 150 farms; helophyte filters were installed on 6 farms; a project on manure use was initiated; two bicycle routes were created; a collaboration between farms and

camping sites was initiated to stimulate tourist visits on farms; a certified working group is responsible for the maintenance of landscape elements; and the ANV owns a 4 ha nature area since 1998. On this area they undertake experiments to investigate different forms of management according to their own management and evaluation plan. It is stated that in winter time the management activities will be evaluated, and results subsequently used as input for policy development. In 2011, the ANV has 125 members and contributors.

In the area of promotion and communication, for example, newsletters are produced regularly and a leaflet is continuously updated. The group organises excursions and cooperates with other parties,



Figure 18 Vision document of ANV de Ommer Marke 2012

such as LTO. A number of walking and cycling trails will be improved and the network will be updated. In the area of innovation and energy, the ANV reports on a pilot project to reuse water on-farm and wood production for biomass energy.

Vision documents like the one analysed contain information about the type of monitoring and evaluation carried out, and they also indicate where and in what frequency results have been or are planned to be documented. However, the overview and description of activities remains qualitative. It is mainly a planning tool and forward facing document and hence does not cover outcomes and indicators explicitly and in detail. Nevertheless, it is an important step for groups to produce such documents in order to be able to compare their achievements to what was planned and to provide direction for the group's work.

3. Documentation produced by ANVs under the New Subsidy Scheme SNL

3.1. Collective Management Plans

Collective Management Plans are set up or revised each year in order to become or stay eligible for the SNL subsidy streams (applicable from 2010 onwards). Each year these collective management plans need to be approved by the Provincial Governments. The idea of the new Subsidy Scheme is that Provinces receive more power to adjust and enforce the scheme in order to adapt the subsidy scheme to local circumstances (SNL 2011). ANVs are granted more authority and decision making power if they apply for the certification of Field Coordinator. ANVs have to produce a collective management plan that integrates nature and management in the specific local context. The changes that were introduced with the new subsidy scheme place a higher emphasis on trust, in particular



trust in the quality and professionalism of nature managers (SNL 2011). As an example the collective management plan of ANV Agrarische Natuurvereniging Oost Groningen (ANOG) is analysed.

ANOG's Collective Management Plan (2011) cover 48 pages and addresses goals, features of the ANV working area, activities and measures, organisation and cooperation (including monitoring), as well as planning and financing. The plan reads like a report and links many input and output indicators to the description of the group's ambitions, responsibilities and actions. No monitoring results are presented, but the detailed description gives the impression that ANOG is extensively monitoring their management measures. In the document it is stated that according to experts ANOG is the best monitored area.

Under the new subsidy scheme ANOG will manage 535 ha for arable farm birds. Measures are presented as information what works for arable birds, based on scientific literature, rather than listing the precise measures undertaken by each members. Monitoring is carried out by a working group called '*Werkgroep Grauwe Kiekendief*'. Monitoring claimed to be a useful way to learn more, to improve understanding of the management measures, and to feedback results to group members (ANOG 2011). The precise monitoring method is not specified.

The goal of ANOG is to improve the bird population on arable land in their working area. They focus on certain species: skylark, Montagu's harrier and partridge. They aim to improve the density of the skylark from for instance 5 – 10 birds per 100 ha to 10 – 15 birds per 100 ha. For the Montagu's harrier they try to maintain the density of 35 – 40 couples and increase it by enhancing field margins, increase the area of fields margins under management, and improve 'forgotten' landscape structures like margins along dikes. Improvements for partridge habitat the group plans are increasing insect-rich habitats, leaving arable land fallow, or sowing the land with special grasses and grains as fodder for the birds.

At the selected areas that are eligible for SNL subsidies, the ANV requires at least 5% of arable field margin management. It is stated that this area is envisioned as a network of well-managed field margins and some fodder fields benefiting the fauna. The aim is to increase the area under nature management from 5% to 8%. The relevant subsidy package for arable field margin management for arable birds is A01.02. (SNL code): "Fauna management, with arable birds". Management requirements and thus measures are:

- Sowing of grasses, grains, herbs or a mix of all.
- 20%-70% needs to be mowed and biomass removed between 1 March and 15 April and between 15 July and 14 September.
- No mechanical or chemical weed control is allowed, only manual
- No grazing and manure

The establishment of a Field Coordinator (in the case of ANOG the ANV's board) is the means to delegate responsibility from government agencies to the ANV. The ANV as Field Coordinator assigns responsibilities to persons called regional directors or local field coordinator that make site visits and talk with farmers at the farm. In addition, they organise occasional meetings with other partners. ANVs Utrechtse Venen, for example, have assigned responsibilities to 7 regional directors which are the 'eyes and ears' of and for the farmers. They are also of help with last minute management, when farmers in the field see that there are still birds breeding past the date after which mowing is allowed, farmers can agree a last-minute contract with the regional ANV directors. This gives them a

higher SNL compensation for delaying their mowing activities for as long as the last-minute contract is for.

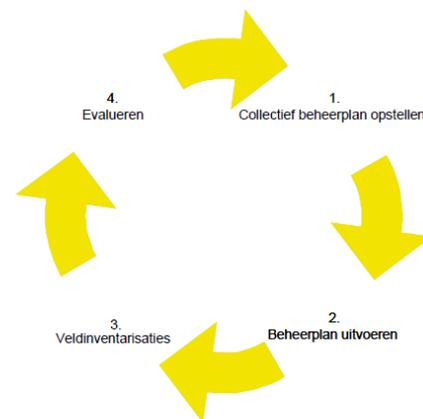
Not all detail provided in ANOG's Collective Management Plan can be discussed here. In general, these types of plans provide information on how the ANV organises its management, the number of contracts, the ambitions for future management, and on financial aspects. Taking into account that for every year an ANV needs to make or adjust a new collective management plan, the information about each ANV's contributions can be expected to become more broadly available.

3.2. Certification of ANV under new subsidy regime: Quality Handbook

For the ANV to become certified, the group has to establish a Quality Handbook that describes how the ANV works. There is no strict format for how to write a Quality Handbook. However, it needs to address the following operational requirements:

- The way the ANV will comply with the management goals as set in the Provincial Nature Plan
- The measures and activities for nature management that comply with the nature goals
- The basic monitoring
- The evaluation on the basis of the monitoring and adjustment of goals/management measures
- The self-control of the management system (internal audit)
- Additional requirements for group certificate holders
- The way the ANV will set up projects and how this will be implemented
- Field Coordinator (natuurportaal, 2012).

A model Quality Handbook can be downloaded from the [Portaalnatuurenlanschap](#) website, and a comprehensive picture about the management plan process is given: first an ANV draws up a collective management plan, which is then implemented. This is followed by step 3, the compilation of field inventories, and concludes with an overall evaluation – which will lead to adjustments in the collective management plan and thus closes the cycle (Figure 19).



Figuur 1: Stappen beheercyclus

Figure 19 Illustration of the management plan process (SNL 2011)

The Quality Handbook needs to specify how the ANV plans to monitor the management measures and nature quality. Methods and intensity of the monitoring are agreed upon in cooperation with the Province. The collective management plan should detail how the Field Coordinator will compile the field inventories. In addition, each year an ANV needs to give an overview of relevant nature quality encountered during the field inventories. This is important, because then nature management measures can be adjusted in order to reach better nature results (model quality handbook). The model quality handbook offers a checklist for the evaluation of the nature management undertaken by the ANV and its members:

- Management measures have been executed according to contract?
- Ecological data
- Results of field inventories (location, species, number)



- Impact of predation on management results
- Impact of hunting on management results
- Other relevant interventions in area (water level, construction, roads)
- New management requirements from different parties

If the ANV has taken on the responsibility of Field Coordinator it is obliged to present nature results to the Provinces. In these cases, monitoring is undertaken and presented in the collective management plans.

4. Conclusion

This report set out to assess to what extent *Agrarische Natuurverenigingen* (ANVs) use indicators to monitor and record the progress they make, which indicators they use, and to what extent these indicators are documented and published by ANVs. We assumed that annual reports are a widely used tool among groups to record indicators for progress and to feedback to members and funding organisations. We were able to access a total of 18 reports online. The analysis of these reports was complemented with other material including newsletters, websites and collective management plans, as well as published literature because it became clear quickly that not all information was concentrated in annual reports.

Since only 18 of 153 ANVs publish their results in annual reports and make them available for download, this source alone cannot be considered adequate to evaluate the contribution of ANVs to sustainable landscape management. More reports could probably be accessed if groups were contacted individually and paper copies made available. In addition to the small overall number of reports available, other factors reduce the comparability of reports and the data they contain, e.g. reports cover different reporting periods or date from different years. Furthermore, the reports differ 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).

Most annual reports mention the recent number of members but make no comparison to previous years. Membership size ranges from 50 to 800 which corresponds with findings of Oerlemans et al. (2007). The annual reports rarely specify the number of staff a group employs. Many ANVs have a field coordinator who supports farmer members in the field and with subsidy applications. Most ANVs have a similar organisational structure: board, members and several working groups. However, there are some differences: St. Vragenderveen is a foundation and has no members and the Ploegdriever's main activity seems to be only landscape management. Overall, ANVs vary in the focus of their activities. Some ANVs only focus on landscape management, others only on meadow bird protection, but most ANVs have a combination of activities as became clear from the annual reports.

The use of indicators differs according to the type of activities. Indicators are most widely used to evaluate bird protection activities. Most reports cover the type of species found and the nests counted. Very few reports go further and assess the outcome of breeding by measuring the percentage or number of healthy chicks. This is the case where meadow bird management is the core activity of the group. In addition, groups document the number of nest boxes, number of birds and number of breeding pairs, often over several years. Other indicators owe their common usage



to a requirement linked to subsidies provided for species or habitat management. These include the number of contracts, the area under contract for specific management undertaken by group members, and the value of the contracts.

The monitoring of bird management activities is also supported by SOVON and their standardised method, their regular 3-year-monitoring effort, and the extensive network of Bird Protection Groups and other volunteer groups who help in collecting and recording the data. Individual groups also report on targets such as the number of breeding couples of bird species that were agreed with the funding body, e.g. the Province.

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 enhancing the area for visitors (recreational use) it is common among groups to report on the number of events (workshops, excursions, courses, guided tours, farm visits) and the number of participants. Indicators used for recreational infrastructure include length of tracks and routes (in km), number of signs established or maintained, number of publications and leaflets, 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 ANVs aim to make. There are too many other factors that the ANV cannot influence but which may impact on the success or otherwise of their management activity. Hence, the use of impact indicators is marginal. We find examples among the groups involved in meadow bird management, where not only nests are counted but also chicks and birds, and among groups involved in botanical (margin) management, where abundance of species is recorded, in both cases as a function of the management activity. If monitoring is intended, the data needs to be collected over several years.

Where the monitoring of impact indicators is not feasible, groups typically rely on proxy indicators. These can be input or output indicators. For example, an increase in the area under management is assumed to be beneficial to the target species and taken to indicate the desired ecological impact. The number of participants in guided tours may indicate that they have learned more about their natural environment, understand its value and management better, and may get involved to protect it in the future.

In a similar way, the financial volume of measures undertaken by groups is only a proxy indicator. Few groups (only 6 of 18 in our sample) document financial aspects in their annual reports at all. The level of aggregation differs between reports and thus little can be inferred regarding the impact of the money spent. A higher volume may indicate a higher share spent on ecologically beneficial activities but the exact link to impact on the ground is not straightforward. If the subsidies generated by the group are meant to have an economic benefit for the farmer, the share of funding paid out to



the farmer members may be used as the proxy indicator for the economic well-being of the farming enterprise.

The analysis of the reports showed that ANVs cooperate extensively with a range of other partners, partially because of their various funding sources but also because of public-private structures (e.g. landscape funds) and numerous projects and initiatives that they are involved in. This cooperation creates a network of knowledge, helps to coordinate activities and allows groups to fulfil a role as the contact point for land managers and government. None of the ANVs, however, specified this as the impact of their activities. It is rather treated as a precondition for achieving the aims of the group.

We are aware that 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. We derive from the analysis 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 we assume 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). We also note that 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.



References

Literature

- Directie Kennis (2007) Mozaiekbeheer voor weidevogels, evaluatie en mogelijkheden voor optimalisering, (eds. Oosterveld, E.B., Terwan, P., Guldemon, A.) Ministerie van Landbouw, Natuur en Voedselkwaliteit
- EU Directorate General for Agriculture and Rural Development (2006) Rural Development 2007-2013. Handbook on Common Monitoring and Evaluation Framework. Guidance document (September 2006). Available at: http://ec.europa.eu/agriculture/rurdev/eval/guidance/document_en.pdf
- IPO, Interprovinciaal Overleg (2009), Interprovinciale Richtlijn, Subsidiering gebiedscoördinator en organisatiekosten ANV's.
- Oerlemans, N., Guldemon, 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., Guldemon, A. (2006) Agrarische Natuurverenigingen als gebiedspartij voor versterking natuur, landschap en plattelandontwikkeling, Centrum Landbouw en Milieu
- Oerlemans, N., Guldemon, A., Visser, A. (2007) Meerwaarde agrarische natuurverenigingen voor de ecologische effectiviteit van Programma Beheer, Ecologische effectiviteit regelingen natuurbeheer: Achtergrondrapport 3, Centrum Landbouw en Milieu
- SNL, Subsidie Natuur- en Landschapsbeheer (2011) Portaal natuur en landschap, the government website for the SNL subsidy scheme. Available at: www.portaalnatuurenlandschap.nl

Websites of Agri-environmental cooperative groups (ANVs), as of March 2012:

- ANV de Amstel, 2010: annual report, available at: www.anvdeamstel.nl
- ANV Ark en Eemland, 2008: annual report available at: www.arkeneemlandschap.nl
- ANV De Bonnen, 2003: annual report available at: www.debonnen.nl
- ANV Den Haneker, 2011: annual report available at: www.denhaneker.nl
- ANV Fugelfrij, 2007: annual report, available at: http://www.mtshiemstra.nl/nl/Natuur_en_landschap/Fugelfrij
- ANV Gagelvenne, 2007: annual report, available at: www.gagelvenne.nl
- ANV de Lingestreek, 2009: annual report available at: <http://www.van-lingestreek.nl/>
- ANV de Lopikerwaard, 2010: annual report available at: www.anvlopikerwaard.nl
- ANV de Maashorst, 2012: annual report available at: http://www.maashorstboeren.nl/page_intro.php?p_id=1



ANV Natuurlijk Voorne Putten, 2010: annual report available at:

<http://www.natuurlijkvoorneputten.nl/>

ANV 't Onderholt, 2011: annual report available at: <http://www.onderholt.nl/>

ANV de Ploegdriever, 2009: annual report available at: <http://www.ploegdriever.nl/>

ANV Rivierduingebied, 2010: annual report available at: <http://www.rivierduingebied.nl/>

ANV Stad&Ommeland, 2010: annual report available at: <http://www.stadenommeland.com/>

ANV de Utrechtse Venen, 2010: annual report available at: www.deutrechtsevenen.nl

St. Vragenderveen, 2011: annual report available at: <http://www.vragenderveen.nl/>

ANV Water, Land en Dijken, 2010: annual report available at: www.waterlandendijken.nl

ANV Westellingerwerf, 2011: annual report, available at:

<http://www.agrarischnatuurbeheerweststellingwerf.nl/>

Annex A: Fusions of ANVs into bigger umbrella organisations

ELAN (<http://www.elan-zofriesland.nl/>) is a collaborative partnership of five ANVs in the South-East of the Province of Friesland. ELAN was founded in April 2010. Their goal is to support each other through collaboration, to exchange knowledge and learn from each other, and to be the contact point for government (Figure 4).



Figure 3 Visual representation of ELAN (internet: www.elan-zofriesland.nl/)

‘De Groene Klaver’ (<http://www.degroeneklaver.nl/>) is a collaborative partnership of four ANVs in the West of the Province of South-Holland: ANV Wijk en Wouden, VANade, Geestgrond and Santvoorde. De Groene Klaver was founded in October 2010, and it is meant to be the contact point for government, concentrating labour capacity for the four ANVs, so that “more of our ambitions and plans can happen” (Chairman Groene Klaver, website 2011).

Eight ANV’s in the Province of Drenthe recently merged (March 2012) into a big, provincial-wide ANV, called **ANV Drenthe** (www.anvdrenthe.nl). ANV Drenthe consists of the following eight ANV’s, that are soon to be converted into working groups of ANV Drenthe: Boeren met Uitzicht, Wasperven, De Broekstreek, De Wisper Wulp, Maolaand Wapse, Meander, Noordenveld. Reasons given for this fusion include: 1) Better collaboration between the groups, 2) Province-wide cover of ANVs, and 3) Stimulation of more innovative activities.



Figure 4 visual presentation of Grunn Leeft at www.grunnleeft.nl

‘Grunn Leeft’ (<http://www.grunnleeft.nl>) is an alliance of eight ANVs in the Province of Groningen: Agrarisch Natuur- en Landschapsbeheer Slochteren, Wierde & Dijk, Stad en Ommeland, Ons Belang, Boer & Natuur ZWK, Agrarische Natuurvereniging Oost Groningen (ANOG), Meervogel,



BoerenNatuurDe Eendracht (Figure 5). No specific reason is provided at the 'Grunn Leeft' website for the establishment of 'Grunn Leeft'. It appears to be more of a promotional activity, especially in comparison with the more extensive collaboration of Groene Klaver, ELAN and ANV Drenthe. ANOG reports on this cooperation that the goal is to raise awareness about agricultural nature management in the Province of Groningen (ANOG, 2011, website)

Annex B: ANV involvement in field margin management pilots

ANV Rivierduingebied cooperated in a pilot project called: 'Veldleeuwerik', from 2007 till 2010. This is a project that aims to stimulate a sustainable agricultural production, and focuses on soil biodiversity and functional agricultural biodiversity in field margins⁵. Rather than elaborating on the management activity and measures itself, the ANV highlights some suggestions for future field margin management. Below a few of the many suggestions are listed:

- observations are temporary, and long term monitoring is necessary
- to avoid differences in vegetation development, field margins should be managed long term.
- species rich margins are best reached with not mowing of margins and with native species.



Figure 15 Field Margin which is ecologically relevant (ANV Rivierduingebied, 2010)

Other ANVs undertake similar projects to investigate the relationship between biodiversity and farming. The ANV Maashorstboeren for instance undertook several workshops to investigate the relation between biodiversity and agricultural production in order to, as stated in the annual report, depend less on external resources such as artificial manure, pesticides and sprinkler irrigation. ANV Maashorstboeren is an ANV represented by the ZLTO in the Province of Noord-Brabant. Field margin management is a very popular measure in the province of Brabant, as the province has launched a containment border scheme⁶ that runs from 2007 to 2013, with a budget availability of 10 million euros (of which 47% is funded from the ILG (Investment Budget for Countryside Areas) and 53% by the project partners, i.e. water boards, province and ZLTO). Participants in the scheme are paid € 0.35 per linear meter for creating containment borders between ditches and cultivated crops alongside grassland and € 0.70 per linear meter for borders alongside building land.

5

http://www.netwerkplatteland.nl/index.php?option=com_content&view=article&id=50&Itemid=54&action=results&action=details&projid=47 or www.veldleeuwerik.nl

⁶ <http://www.randenbeheerbrabant.nl/boeren/project/english.html> (as of 2012)