EXPLORATORY STUDY OF INNOVATIVE ECONOMIC INSTRUMENTS FOR WATER MANAGEMENT MEASURES IN THE AGRICULTURAL SECTOR
SUMMARY OF PRACTICAL STUDIES

FINAL REPORT

3 september 2010
C03031/BD0/0Q4/000231
C03031.000231

ARCADIS

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Abstract

Objective of the study
The Dutch Ministry of Transport, Public Works and Water Management is investigating different options to modify or expand the funding of water management with more price incentives focusing on more effective, efficient and fairer water management. One of the areas to which additional attention is being paid is the role of innovative economic instruments in agriculture for water management.

At the instructions of the Waterdienst (Water department) of the Dutch Directorate-General for Public Works and Water Management, ARCADIS and LEI have carried out an exploratory study of voluntary initiatives over and above of what is required by law in the agricultural sector in the Netherlands where a type of payment for water-related ecosystem services is involved. These ecosystem services may be related to water quality (nutrients, pesticides and ecology), water quantity (storage) or landscape values.

The nature and scope of such initiatives in the Netherlands have been mapped out within this explorative study. In addition, the success and failure factors have been examined in greater depth for a number of selected representative initiatives (formalised schemes).

The results of this exploratory study serve as the basis for the promotion by the Water DG of promising initiatives within the framework of agrarian water management. In addition, the Water DG also wishes to use the results for consultation and harmonisation on a European level.

Results: number and nature of initiatives
The past few years a compensation system has been developed in the Netherlands for ecosystem services funded by the authorities: the Catalogus groenblauwe diensten (Catalogue of Green and Blue Services = Nature Restoration Services). In addition to this uniform scheme, it has become clear that a broad spectrum of other types of local and regional initiatives for water-related ecosystem services have been created. More than 120 initiatives were identified in the exploratory study. We are assuming that the bulk of the initiatives in the Netherlands have been included in this exploratory study, although a small number of initiatives will inevitably have fallen through the net. An appropriate picture, however, is, on balance, painted of the current situation in the field.

The nature of the initiatives is diverse and vary from advice given to farmers free from obligation, studies and pilots and formal schemes. There are considerable differences within all initiative categories with regard to the spatial

scale level that vary from local (a few farmers, one watercourse) to supralocal/regional (region, province, national).

Results: further analysis of selected initiatives
A further selection was made of the number of representative cases that have been investigated in greater detail of the found initiatives. The selected initiatives have been described in more detail in fact sheets.
A link was sought with the classification as used by UNECE (2007) with a view to obtain input for the Dutch Ministry of Transport, Public Works and Water Management with regard to results on an international level. A 'public mechanism' is involved in all of these initiatives, one or more authority parties funding the scheme.

Nature of the economic instrument
All investigated cases concern a scheme in which financial compensation is involved for the costs of investment, management, maintenance and/or lost income. The nature and scope of the compensation are sometimes derived from the national *Green and Blue Services Catalogue* but are more usually determined at a local or regional level to take account of location-specific conditions (i.e. tailored solutions). None of the cases involve compensation for a service based on a market price and We cannot talk about 'innovative instruments' in that sense.

Sometimes only the initial intervention is compensated financially in a scheme. Examples of this are construction/realisation (for example of nature-friendly banks) and one-off compensation for the drop in value of the land due to the functional designation change (from agricultural to nature). Other schemes also offer compensation for annual loss of income (due to reduced crop yields), management work and/or preparatory and other related activities (training courses, meetings, etc.).

Nature of the ecosystem services
The different initiatives contain a pallet of measures related to usually one ecosystem service. The following ecosystem services have been identified in the initiatives:

- promoting species diversity and ecosystem resilience (both terrestrial and aquatic ecology)
- promoting water quality (by reducing emissions
- increasing water storage
- soil conservation (fighting erosion)
- recreation and retention of landscape and cultural history

Parties involved
Farmers may be involved in the schemes at one or more levels:

- as individuals
- as local groups and local area groups
- through an agricultural nature association or umbrella organisation of these
- and/or through a branch of LTO (Dutch Federation of Agriculture and Horticulture)

Nearly always, a province is involved as a party when setting up a scheme from the government perspective, which is followed by the Dutch Water Boards. In some cases, municipalities, water utility companies, environmental groups, consultancies and/or green funds are also parties in a scheme.

Funding sources

The nature of the funding source(s) of the investigated schemes is very diverse. Funding is based on the resources that are available to the local and regional parties setting up the scheme. National parties (central government) sometimes also join in. The funding sources are usually not linked to the responsible authority (the 'desk') that manages the scheme and where the people who implement the relevant measure(s) do business with (usually farmers).

Success and failure factors

A successful scheme in terms of the actual *use* of the scheme ('output') can be effected as long as the design is good (contents and process). In particular, if we examine all the reported experiences as a whole, the quality of the process as implemented before and during execution of the scheme has been seen to be decisively important for the degree of success. The contents of a scheme will then follow 'automatically'.

Below we show the most important elements. A scheme is more than successful on average when:

Scheme process

- The support for the scheme has been guaranteed sufficiently in advance. Friendly and relaxed talks with an adviser who is 'accepted' by the target group helps within this context.
- The ambitions are realistic in the eyes of the people who are intended to implement the measures (the farmers).
- There is room for learning by doing instead of (only) performing extensive research in advance. This will lead to unexpected and promising innovations more often.
- Farmers and/or an agricultural nature association are involved in the selection of measures and working out the details.
- Permanent commitment from farmers is involved during the execution such as:
    - ✓ Agrarian nature management courses/learning by doing (with their time also being paid for)
    - ✓ Bio-tests for ditches by farmers (monitoring quality themselves
- There is one desk for the scheme. Commitment/management of this desk by an agricultural nature association helps within this context.
- Rapid implementation of the measure is possible.
- The scheme can be fitted in within the post-2013 EU frameworks.

Content of the scheme

- The compensation sum must be adequate.
- The scheme also entails compensation for management and related activities.
- Tailored solutions are possible:

  - ✓ The *Catalogus groenblauwe diensten* and related compensations are often insufficiently location-specific.
  - ✓ A number of measures (for example, the management of buffer strips on agricultural land) occur in varying forms. The measures seem to be context-specific: one and the same measure cannot be applied and fitted at every location (the management of buffer strips on agricultural land, for example, will not be achieved in a region with small parcels).
- The scheme and the related funding covers many years (> 5 years) to offer sufficient security. The scheme should also be able to fit in the reviewed EU frameworks (GLB) after 2013 within this context.
- Changes of functional designation (from agricultural to nature) should not be involved.
- Multiple functions are compounded and offered that can be eligible for co-funding (options to be selected by the farmer).
- The costs for each financer is not too high. Integration of multiple objectives (water quality, water storage/retention and landscape) will help in this context, because then there will also be multiple parties to help bear the expense.

Recommendations

Outcomes of the schemes

This exploratory study focuses on the actual use of schemes for water-related ecosystem services. No opinion can be given based on this exploratory study about the effectiveness and efficiency of these schemes (the 'outcomes') in terms of water management for specific (regional) objectives. More insight into the outcome can be obtained by:

- Performing a more in-depth study by gaining additional information in the selected initiatives in relation to the obtained/expected outcome.
- Making another selection of initiatives from the database where a specific regional objective is given the highest priority in the selection process.

Funding of the schemes

The future of many schemes will depend on the continuity of funding. It would be sensible to determine the costs of a successful scheme in the long term to obtain a picture of what is required to ensure that these schemes - or new ones - can be kept up. This will also ensure that choices can be made about the number of schemes that are feasible financially, linked to the form of funding for those schemes (e.g. funding from different disciplines).

More innovative economic instruments?

All initiatives contained in schemes basically entail compensation for incurred costs and/or loss of income by farmers. This is a solid enough economic instrument, but not really innovative. There may be more innovative elements among initiatives in the 'pre-scheme' phase (pilots and studies), in terms of the nature of the instrument deployed such as e.g. pricing based more on market mechanisms. These precursors could be further analysed with regard to this issue.

CHAPTER 1 Introduction

Insufficient financial stimuli in water management?

According to the WFD (Water Framework Directive, *KRW: Kaderrichtlijn Water*), water pricing policy should contain enough stimuli to promote sustainable use of water. Jantzen (2008) has described current water pricing policy for the Netherlands and evaluated the financial stimuli it contains. The study's results include the fact that the sources of finance have not been clearly defined or that there is a lack of funding for improving aquatic ecology, such as reducing fertiliser use in agriculture and ecological management of water and banks/shores. In addition the intensification of existing instruments (for instance increasing the rates for existing levies), Jantzen suggests that new instruments could be developed, such as paying for ecosystem services.

Remunerations for ecosystem services rendered (a.k.a. Payments for Ecosystem Services, PES) could be an addition to the water financing policy. The idea behind PES programmes is that market situations should be created between the parties demanding ecosystem services and those supplying them, in which the ecosystem service supplied is paid for. Demanding and supplying parties can take part *voluntarily* in this market. This is where PES programmes are different from other policy instruments such as 'command and control' or regulatory levies. The anticipated advantage of a PES instrument over these other types of instruments is that water management can be carried out more effectively and more efficiently.

Payments for ecosystem services

The RWS Waterdienst (the Water Services section of Dutch Department of Public Works and Water Management) asked LEI to look at the possibilities for PES as an addition to the existing instruments for funding Dutch water policy.[1]

LEI has made a link between the water-related ecosystem services and the water services themselves as defined in the WFD.[2] Most water-related

[1] LEI, Payments for ecosystem services an interesting addition to water pricing policy? Final draft 2010.

[2] The WFD requires that a summary of the recovery of costs of water services is provided as part of Article 5 Reporting. The concept of 'water services' is defined fairly broadly in the WFD. The Netherlands has chosen to make sure that the definition of water services

ecosystem services can be linked to water system management. They cover services such as water retention/storage, biodiversity and landscape. See table 1.1.

Table 1.1

Classification of water services and water-related ecosystem services
Source: LEI (2010)

Water services (van der Veeren and Dekking, 2005)	Water related ecosystem services
Production and delivery of water	Extraction of ground- and surface water
Collection and discharge of storm water and wastewater	
Treatment of wastewater	Treatment of wastewater
Groundwater management	Small groundwater extractions by farmers
Water system management	Treatment of water (diffuse sources) Water retention/storage Landscape Biodiversity Salination Dehydration

There are various possible PES forms (i.e. payment mechanisms). UNECE (2007) distinguishes three types of PES programmes for which there is an essential difference for water policy in terms of the institutional mechanisms:

- Public mechanisms (demand from a public party, such as the government and water boards)
- Private mechanisms (demand from a private party)
- Trade mechanisms involving supply-and-demand deals between parties.

Over recent years, a compensation system for ecosystem services, funded by the authorities, has been developed in the Netherlands (the first type of PES programme, according to the UNECE system): the Nature Restoration Services Catalogue ("Green and Blue Services Catalogue"). The catalogue provides a summary of remunerations that authorities in the Netherlands are allowed to give to landowners who provide green or blue services. These services may concern nature, cultural history, recreation or water management. The Green and Blue Services Catalogue was drawn up by the IPO (the joint provincial consultative body) in cooperation with LNV (the Ministry of Agriculture, Nature and Food Quality). This was done in close consultation with the European Commission, which approved the first version of the catalogue in February 2007.

fits in as closely as possible with the existing institutional context and financing structure. The five water services listed here were therefore finally chosen.

Purpose of this study

The Ministry of Transport, Public Works and Water Management is investigating various options for adjusting how water is managed or extending its scope through additional financial stimuli focusing on more effective, more efficient and more equitable water management. One of the focal points is the role of innovative economic instruments in agriculture that will help water management.

In that context, ARCADIS and LEI have carried out an exploratory study, looking at existing voluntary initiatives in the agricultural sector in the Netherlands, above and beyond the statutory requirements, that involve some type of payment for water-related ecosystem services.

These ecosystem services may be related to water quality (nutrients, pesticides and ecology), water quantity (storage and retention) or valued landscape features.

The exploratory work has assessed the nature and scale of such initiatives in the Netherlands. In addition, the success and failure factors have been analysed for a number of selected, representative initiatives (formalised schemes).

The results of this exploratory study will provide the foundations allowing DG Water - the directorate-general for water - to encourage highly promising initiatives involving water management in agriculture. In addition, the DG Water would like to use the results for consultations and agreements at the European level.

Reading guide

Chapter 2 describes the sizes and formats of the initiatives found. A selected number of initiatives have been analysed in greater detail, focusing in particular on functions that contribute to the success or failure of those initiatives. Chapter 3 describes how the selection of initiatives was made. In Chapter 4, we discuss the highlights of the detailed analysis. Finally, Chapter 5 gives the conclusions and recommendations.

The appendices to this report include the fact sheet format we used and the completed fact sheets for the management schemes examined. An Excel spreadsheet containing a summary of all initiatives found and contacts for them has been delivered separately.

CHAPTER 2

Nature and scale of the initiatives in agrarian water management

Based on an Internet scan plus face-to-face talks and telephone conversations, we performed an exploratory study of the nature and sizes of existing voluntary initiatives above and beyond the statutory requirements within the agrarian sector that were related to water management in the Netherlands.

Number of initiatives

The exploratory study identified over 120 initiatives. We have assumed that the bulk of the initiatives known in the Netherlands will have been included, but a number of initiatives will undoubtedly have slipped through the net. We are however convinced that the overall picture is complete enough and gives a good representation of the current situation in the field.

Types of initiatives

The types of initiatives vary widely, from advice to farmers with no obligations through to studies, pilots and formalised schemes. Within all categories of initiatives, there are considerable differences in the spatial scale, ranging from local (just a few famers or a single watercourse) through to district or regional scales (area, province, nationwide).

The Excel spreadsheet, which has been delivered separately, contains all the initiatives that we found plus (where possible) a website link for further information. The list below only gives a brief classification of the initiatives.

Advice with no obligation

Ten of the initiatives found are in this category. In all cases, these are initiatives from water boards with various subjects related to the improvement of water quality:

- Advice about how to tackle gullies (as emission routes)
- Encouragement of spray drift reduction sheet systems in farmland areas
- Encouragement of environmental quality labels in tree nurseries
- Encouragement of the use of improved spraying techniques

- Encouragement of use of slaked lime in fruit cultivation
- Guidebook for land run-off in animal husbandry
- Sustainable nutrient management
- Controlled drainage

Studies and pilots

The bulk of the initiatives are in this category (approximately 70 initiatives). Studies and pilots may develop into future schemes if they get positive evaluations from the initiators and participants. The initiators are mainly water boards and provinces. Only some of the initiatives include remunerations for participating farmers. This category covers a range of subjects, with water quality being a predominant factor. A limited but representative subset of a few of the subjects is given below:

- Prevention of discharges of rinsing water from spraying machines
- A study into the water quality effects of composite controlled drainage
- WFD innovation programme, including:
  - ✓ Natural purification systems
  - ✓ New crops or cultivation systems
  - ✓ Nutrient cycles
  - ✓ Nitrate reduction and phosphate binding
- Construction of dry and wet buffer strips (field margins)
- Alternative disposal methods for ditch clippings
- Water retention/storage pilot in relation to the optimum groundwater and surface water regime (GGOR)
- Optimisation of grassland management and nitrogen use
- Testing a variable drainage system
- Insight into the copper and zinc balance at dairy farms, and into how the environmental burden can be limited using feed tracks and foot baths.
- Insights into how improved soil management in agricultural areas can contribute to the expansion of the water storage capacity of the soil.
- A study into emission through drainage water of outdoor vegetable cultivation and the possibilities for reuse.
- Tests into combating the apple blood louse using its natural enemies.
- Practical study of fruit cultivation, in which the last three rows of apple trees are replaced by varieties that are resistant to scab.

Schemes

More than 40 schemes were found. Almost half the schemes are 'standard' schemes (SNL[3]), implemented nationwide and managed by provinces or through fiscal arrangements. The other half are 'tailor-made' schemes at the scale of provinces, regions or individual water courses. The initiators are mainly provinces and regional water boards. The schemes involve encouraging improved water quality (the predominant theme), water retention / storage and/or area management, mainly through financial compensation:

- Construction and management of nature-friendly banks and shores
- Field margin management

[3] *Subsidiestelsel natuur- en landschapsbeheer*: Agricultural Nature and Landscape Management Subsidy

- Application of functional agricultural biodiversity
- Using farmland for water storage
- Limiting erosion

The majority of the schemes provide financial compensation for services rendered related to water management.

In a few cases, compensation is provided in other ways (fiscal, quality label, 'Digging = Filling'[4]), or the compensation is not primarily focused on water management, but on other ecosystem services.

[4] In the case of 'Digging = Filling', the requesting party (in this case a farmer) compensates the lost volume of surface water that he wants to fill in because of his business operations by digging out the same volume of new surface water. This new water can then be given a nature-friendly bank.

CHAPTER 3 Selection of initiatives

A further selection was made from the 120-plus initiatives found, and discussed in the previous chapter, yielding a number of representative cases that have been investigated in greater detail. A number of criteria were used for this:

Criterion 1: a voluntary measure related to water management by farmers
All initiatives meet this criterion in that they involve measures about water management that farmers can take voluntarily.

Criterion 2: framework of the measure
Advice with no obligation and small-scale pilots are potential future schemes, but contain less information and are less relevant than existing, larger-scale schemes.

- Advice with no obligation/initiative – not very relevant
- Small-scale study or pilot – not very relevant
- Study or pilot with a number of farmers and a structured scheme – moderately relevant
- Local scheme – relevant
- Regional scheme – relevant
- National scheme – relevant

Criterion 3: type of compensation
Relevance to water management functions and compensation type. There should be at least some form of financial compensation for the services provided by the farmer.

- Financial compensation for services related to water management – relevant
- Compensation *other* than financial compensation for services related to water management (fiscal, FAB[5] or through biological quality labels, 'Digging = Filling' etc.) - not very relevant
- Combination - relevant
- Financial and other compensation for services that focus on water management and other functions – relevant
- Financial and other compensation for services that do not primarily focus on water management – moderately relevant

[5] Functionele Agro Biodiversiteit.

Criterion 4: status / utilisation of the scheme

- Being set up – not yet being used – moderately relevant
- Unused/hardly used – moderately relevant
- In use – relevant
- Running but closed to new members – relevant
- Completed – relevant

Criterion 5: distribution and availability

When selecting the initiatives, we tried to achieve a certain typological and geographical distribution of schemes. We have also taken the availability of relevant information into account.

- Initiator[6]
- Nationwide coverage
- Diversity of agricultural companies
- Diversity of schemes
- Availability of information

Using the above-mentioned criteria results in the following:

- Pilot/study/no-obligation advice projects were dropped (see criterion 2)
- Generic SNL projects or projects using schemes that do not focus on water management were dropped (criterion 3).
- Within the schemes category, it is preferable that a scheme is actually used or has actually been used (criterion 4).
- Projects for which there is little information/no contacts were dropped (criterion 5).
- Projects that are relatively unique are considered for selection (criterion 5). This could be:
  - ✓ measures other than those related to water quality
  - ✓ in a region where few initiatives were found
  - ✓ a unique combination of scheme and governmental authority
  - ✓ involvement of a specific group of committed farmers

After applying the selection criteria and in consultation with the client, the following initiatives were selected for elaboration in fact sheets. Please refer to Table 3.2 for a summary of the initiatives in question and a brief list of their characteristics.

[6] Initiators may be governmental bodies, one or more provinces, one or more water boards, a combination of authorities, private parties, interest groups or a mixture of organisations.

Table 3.2

Selected initiatives for water-related ecosystem services

Fact sheet / initiative	Scale of the initiative	Purpose of the scheme	Initiators	Points of note
Fact Sheet 1 Farmers as the Water Managers in the Vecht Valley (Noord-Holland)	Local scheme (approx. 25km of banks)	Nature-friendly banks and fish-friendly facilities → aquatic ecology and water retention/storage	Regional water board	One of the few wet buffer strip schemes in the Netherlands
Fact Sheet 2 Active Border Management in Brabant	Regional scheme (>1,200km of field margins/hedgerows)	Layout and management of field margins → promoting water quality and nature values	Water boards, province and ZLTO (Southern Netherlands Agricultural and Horticultural Organisation)	Pioneering role in field margin/hedgerow management and cooperation with authorities
Fact Sheet 3 Green and Blue Services in Overijssel	Regional scheme	Landscape packages for the construction and management of landscape elements. Water storage is a derived objective	Province of Overijssel	Administrative cooperation between water boards and provinces is difficult
Fact Sheet 4 "Green and blue services" (nature restoration services) Gelderland	Regional scheme	Management fees for the layout of landscape elements, depreciation of land and water management→ water quality, water storage, nature and landscape	Province and water boards	Why was the cooperation more successful here than in Overijssel (Fact Sheet 3)?
Fact Sheet 5 Green and Blue	Local scheme (pilot scale)	Various landscape goals, water storage	Province, water board and farmers' interest	Functional green and/or blue (nature restoration)

Services in Utrecht - pilot			group	services
Fact Sheet 6 Functional Agricultural Biodiversity in Hoeksche Waard	Local scheme (FAB at the local scale)	Use of FAB field margins/hedgerows → water quality	LTO (Agricultural and Horticultural Organisation Netherlands), province, LNV (Ministry of Agriculture, Nature and Food Quality)	Broad cooperation, FAB initiator, agricultural operations
Fact Sheet 7 Sustainable bulb cultivation and incentive scheme for marigold species, Drenthe	Local scheme and pilot (mixed)	Sustainable bulb cultivation / lily cultivation → water quality	Province, 10 bulb growers	Target group: bulb growers

Fact sheet / initiative	Scale of the initiative	Purpose of the scheme	Initiators	Points of note
Fact Sheet 8 Green and Blue Services (nature restoration services) for Oostbroekpolder and Blauwe Polder (Rijnland)	Local scheme / pilot (10 farmers)	(More) environmentally friendly operations → water quality	Regional water board	Water board initiative with 'green and blue' services
Fact Sheet 9 Green and Blue Services / Central Delfland Green Fund	Local scheme	Management and maintenance of landscape elements → biodiversity, water storage	Municipality of Midden Delfland	Initiative from the municipality
Fact Sheet 10 Langs de Linge (Along the Linge)	Local scheme (A local area group of 6 farmers along the River Linge)	Field margin management, optimisation of operations → WFD objectives for water quality	Regional water board	Wet measures (banks/shores)
Fact Sheet 11 Limiting Erosion in Zuid-Limburg	Regional / local scheme (combating erosion)	Use of non-inverting tillage and mulch → combating soil erosion and flooding	Regional water board	Combating erosion, scheme in Limburg
Fact Sheet 12 Subsidy Scheme for Nature-friendly Banks in Rijnland	Regional scheme (NVO: nature-friendly banks)	Encouragement of the construction of nature friendly banks → water quality, water storage	Regional water board	NVO scheme from the water board
Fact Sheet 13 Water-retaining Banks Incentive Scheme - Rivierenland	Regional scheme (water storage/retention)	Making banks/shores more suitable for water storage and fishery measures → water quantity, nature	Regional water board	Water storage / retention

CHAPTER 4 Analysis of the selected initiatives

4.1 FORMAT OF THE DETAILED ANALYSIS

The selected initiatives have been worked out as fact sheets and we tried to make them fit in with the classification as used by the UNECE (2007) with a view to the presentation of the results at international level by the Ministry of Transport, Public Works and Water Management.

The layout of the fact sheet is as follows:

- General information
- Background
- Contents
- Support and uptake
- Costs and benefits
- Success and failure factors

Appendix 1 contains the detailed format of the fact sheet. Appendix 2 contains the completed fact sheets for the selected initiatives. The first three parts of the fact sheets have been completed as well as possible. Giving factual answers to each separate point is somewhat difficult for the last three parts, but these points and their interrelationships are discussed briefly at the bottom of each fact sheet. The key findings from the fact sheets, taken as a whole, are given below.

4.2 HIGHLIGHTS OF THE RESULTS

The most striking points from the completed fact sheets are discussed below. We will particularly be looking at the parallel elements and differences between the initiatives here.

Type of economic instrument
All the initiatives are part of a scheme that provides financial remuneration, usually directly, sometimes using a points system.

The compensation is sometimes derived from the national Green and Blue Services Catalogue, but is usually determined locally/regionally, in order to take account of location-specific circumstances.

A scheme sometimes only finances the initial intervention. This may for instance involve creation/realisation (e.g. of nature-friendly banks and shores) or a one-off remuneration payment for the loss of value of land because of the change in designated function (from agriculture to nature). Other schemes involve payments for annual income losses (due to reduction in crop yields), for management work and/or for preparatory and peripheral activities (training courses, meetings, etc.).

Nature of ecosystem services

The various initiatives comprise a package of measure that are generally related to a single ecosystem service. The following ecosystem services were found among the initiatives:

- encouragement of species diversity and the resilience of ecosystems (both terrestrial and aquatic ecology);
- Improving water quality (by reducing emissions);
- improving water retention/storage;
- soil preservation (combating erosion);
- recreation and retention of landscape and its cultural history.

Parties involved

Farmers are involved in the schemes at one or more levels:

- as individuals
- as a local (area) group
- through an (umbrella organisation) of agricultural nature associations
- and/or through a branch of LTO (Agricultural and Horticultural Organisation Netherlands).

On the part of the authorities, a province is almost always involves as one of the parties when a scheme is set up, with the water boards coming next. In some cases, municipalities, water utility companies, environmental groups, consultancies and/or nature funds are involved in a scheme.

Sources of finance

The sources of finance in the schemes examined were extremely diverse. Financing comes via the resources that are available to the local and regional parties drawing up the scheme. National parties (national government) sometimes join in too. The sources of finance are generally independent of the body responsible (the 'front desk') for managing the scheme and with which those implementing the measure or measures in question - almost always farmers - actually interact.

A brief summary of the origin of funding sources is given below:

- WFD innovation programme
- Regular resources of the water board
- Regular resources of the province
- Regular resources of the agrarian nature associations
- ILG (subsidies for the layout of rural land)
- POP (rural development programme)
- Financial contributions from (regional bodies of) LTO, the main Arable Farming Marketing Board and the Horticulture Marketing Board
- National governmental authorities (Ministry of Agriculture, Nature and Food Quality; Ministry of Housing, Spatial Planning and the Environment; Ministry of Transport, Public Works and Water Management)
- Netherlands Architecture Fund (cultural history)
- Landscape Development Plans (LOPs) of municipalities
- Area Implementation Plans (GUPs) of municipalities
- Rabobank

Success and failure factors

If properly designed (in terms of the content and the process), it is possible to create a scheme that is successful, at least in terms of the actual *utilisation* of the scheme (its 'output'). Taking a look at the experiences as a whole, the most crucial success factor is above all the quality of the process deployed, both before and during the implementation of a scheme. The content of a scheme then follows 'naturally'.

The key elements are shown below. A scheme is more successful than average if:

Process

- The backing for the scheme is guaranteed sufficiently beforehand. On-site discussions - 'around the kitchen table' - help, particularly if the advisor is 'acknowledged' as such by the target group.
- The ambitions are realistic in the eyes of those who are intended to implement the measures (the farmers).
- There is room for *learning by doing* rather than (just) performing extensive studies beforehand. This often leads to unexpected and promising innovations.
- Farmers and/or an agricultural nature association are involved in the selection and detailing of the measures.
- There is ongoing involvement of the farmers during implementation, for example:
  - ✓ a course on nature management in agriculture / learning by doing (with compensation for time spent);
  - ✓ 'Ideal Ditch' contest;
  - ✓ bio-tests for ditches performed by farmers (monitoring quality themselves).
- Having a single 'front desk' for the scheme. It also helps if an agricultural nature association is involved in or even manages this front desk.
- The measure can be implemented quickly.

Content of the scheme

- The level of remunerations is appropriate.
- The scheme also includes compensation for the management work and necessary peripheral activities.
- Tailored solutions are possible:
  - ✓ the Green and Blue Services Catalogue (nature restoration services) and associated remunerations are often not specific enough to the location.
  - ✓ a number of measures (e.g. hedgerow management) appear in various different forms. The measures turn out to be context-specific: the same measure cannot be applied and made to fit at every site (hedgerow/field margin management cannot get started in an area with numerous small plots of land, for instance).
- The scheme and the associated funding are long-term (>5 years) in order to provide sufficient certainty. The scheme must then also be able to be fitted in within the revised EU frameworks (CAP) after 2013.
- Where there is a changed in the designated land function (from agriculture to nature).
- Multiple functions are offered in combination where they could then be considered for co-financing (choice of options for the farmer).
- The costs for each financing party are not too high. Integration of multiple objectives (water quality, water retention, landscape) also helps here, because multiple parties will therefore be available to 'shoulder the load'.

CHAPTER 5 Conclusions and recommendations

Conclusions

Over recent years, a compensation system for ecosystem services, funded by the authorities, has come into existence in the Netherlands: the Nature Restoration Services Catalogue ("Green and Blue Services Catalogue"). In addition to this uniform scheme, it has transpired that there is a broad spectrum of other types of local and regional voluntary initiatives in the agricultural sector in the Netherlands, above and beyond the statutory requirements, that involve some type of payment for water-related ecosystem services.

All these initiatives involve a 'public mechanism': one or more governmental authorities act as the requesting party within the scheme.

If properly designed (in terms of the content and the process), it is possible to create a scheme that is successful, at least in terms of the actual *utilisation* of the scheme (its 'output'). Conditions that help to make the scheme a success have been listed when the success and failure factors were discussed.

Recommendations

Scheme outcomes

This exploratory study focuses on the actual utilisation of schemes for water-related ecosystem services. The exploratory work is not able to make any judgements about the effectiveness and efficiency for water management (the outcomes of these schemes) in terms of any specific local or area objectives. A better picture of the outcome can be obtained through:

- A second round taking a more in-depth look at the selected initiatives and obtaining additional information with respect to the outcomes expected and achieved.
- another selection can be made using initiatives from the database in which a specific area objective is paramount in the selection process.

Funding the schemes

The future of many schemes depends on continuity in their funding. To get a clear picture of what is needed to keep these or other new schemes up and running in the longer term, it makes good sense to determine the costs of a successful scheme in the longer term. Choices can then also be made about the

number of schemes that are - financially - feasible, linked to the funding format for these schemes (e.g. funding that comes from a range of disciplines).

More innovative economic instruments?

All the initiatives that are embodied in schemes boil down to a remuneration for the costs incurred by farmers and/or their loss of income. That is a solid but not very innovative economic instrument. It may be possible to find other novel elements in the initiatives during the 'pre-scheme' phases (pilots and other studies) in terms of the type of instrument deployed, e.g. with pricing based more on a market mechanism. These precursor schemes could be analysed further with this in mind.

ANNEX 1 Template of the fact sheet for the selected initiatives

Documents defining the preconditions

Definitions

- A 'measure' is a physical activity to improve ecosystem services or the quality of such services. Examples include the construction of buffer strips (hedgerows, field margins), emission reduction, etc.
- An 'instrument' is the (financial) stimulus to encourage the implementation of measures.
- A 'scheme' is the combination of an instrument linked to one or more measures.

Types of measures

This study looks at schemes for the following types of measures: voluntary measures – above and beyond the statutory requirements - in which the farmer carries out additional work and receives compensation for it.

No transfer of ownership

UNECE (2007) also refers to transfers of ownership. The assumption made in this study is that the property rights remain with the landowners: there will be no transfer of ownership. The focus of the study is on schemes in which farmers remain tenants or landowners.

	No.	Indicators	Description	Possible answers
General information about the scheme				
	1	Scheme name	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	
	2	Location / area	What is the location or area within which the scheme is being implemented?	Name of ▪ Regional water board ▪ Region ▪ Watercourse ▪ National ▪ etc.
	3	Purpose of the scheme	Encouragement of -construction of technical measures and/or - changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	▪ construction of technical measures ▪ changes to land/water management ▪ etc.

Background to the scheme				
	4a	Management problem/ ecosystem service	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	▪ Water quality (water purification) ▪ Emission reductions ▪ Aquatic nature ▪ Terrestrial nature (anti-desiccation) ▪ Biomass ▪ Landscape/recreation ▪ Water nuisance/flooding (water retention)
	4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	▪ Water quality (water purification) ▪ Emission reductions ▪ Aquatic nature ▪ Terrestrial nature (anti-desiccation) ▪ Biomass ▪ Landscape/recreation ▪ Water nuisance/flooding (water retention)
	5	Underlying policy, legislation and regulations	Which policies or legislation/regulations cover the scheme?	Financing ▪ SNL scheme (Agrarian Nature and Landscape Management Subsidy) ▪ POP (rural development programme) ▪ ILG funding (subsidies for layout of rural land) Policy/legislation ▪ WFD (Water Framework Directive - *KRW: kaderrichtlijn water*) ▪ NEN (National Ecological Network - *EHS: Ecologische Hoofdstructuur*) ▪ WB21 (water storage plan) ▪ VHR (bird and habitat directives) ▪ N2000

				▪ Swimming water ▪ GGOR (preferred groundwater and surface water regime) ▪ Climate (adaptation)
	6	Process	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.)	
			Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	▪ Water boards ▪ Provinces ▪ Municipalities ▪ Interest groups
	7	Source of finance	What source of finance was used to pay for the scheme? And what is the maximum budget?	▪ SNL scheme (Agrarian Nature and Landscape Management Subsidy) ▪ ILG funding (subsidies for layout of rural land) ▪ Increases in water rates ▪ EU subsidies ▪ private parties ▪ landscape funds ▪ central government (other than ILG) ▪ etc.
Content of the scheme				
	8	Measure	Is the scheme intended to encourage the implementation of any measures? If so, which?	▪ Dry field margins ▪ Wet field margins ▪ Nature-friendly banks/shores ▪ Helophyte (marsh plant) filters ▪ Etc.
	9	Instrument	What type of economic instrument is used for the scheme? And what is the compensation?	▪ Management fees ▪ Tradable water rights ▪ Subsidy ▪ Tax breaks ▪ Etc. • Investments for the measures • Compensation for loss of income Compensation so that land can be made suitable for

				farming again after the contract terminates (a kind of 'scrap value')
	10	Scheme providers	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	▪ Regional water boards, provinces, municipalities ▪ National government ▪ Agrarian nature association ▪ Etc.
	11a	Beneficiary of the instrument	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Farmers Other landowners

	11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	▪ mandatory implementation of the measure (e.g. subsidy on investment) ▪ mandatory management (management fee for maintenance of nature-friendly banks) ▪ Land leases
	11c		What is the amount for the scheme? With what frequency is it paid out?	▪ One-off ▪ Annually
	11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	▪ Limited period of time ▪ Unlimited period of time
	12a	Status of the scheme	Is it an existing scheme or a proposal?	▪ Existing ▪ Proposal
	12b		If it already exists, to what extent is the scheme being taken up?	
	12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	
	12e		What is the starting date of the scheme?	
	12f		What is the (intended) end date of the scheme?	
	12g		What will happen when the scheme is finished?	
Support for and use of the scheme				
	13a	Feasibility and support	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	
	13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	▪ yes ▪ no
	13c		Have potential beneficiaries been made aware of the scheme? How was that done?	▪ yes ▪ no
	13d		Is there support for the	

			scheme among the beneficiaries? What are the key reasons for this?	

	13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	▪ yes ▪ no
Costs and benefits				
	14a	costs for the beneficiary	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	▪ yes ▪ no
	14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	Yes, ▪ management costs ▪ maintenance costs ▪ loss of income No
	14c	costs for the party offering the scheme	What costs are there for the party offering the scheme?	▪ high transaction costs (%) ▪ reimbursements ▪
	15a	Benefits for the beneficiary	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	▪ none ▪ lower crop protection costs ▪ more revenue from recreation ▪ improvement of the public image of farmers ▪ improved business operations (compensation in a different form) ▪ etc.
	15b	Benefits for the party that is offering the scheme		▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?

	16	Other schemes	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
	17	Weighing up costs/benefits of the measure	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	

Success factors and failure factors				
	18a	Failure factors	What do those involved see as failure factors for the scheme?	▪ modification of the goal (from quality to nature) ▪ financial uncertainty ▪ changes in management (and management by water boards) ▪ other? ▪ High investments ▪ High operational costs ▪
	18*		What are the risks of the scheme?	little or no interest, leaving the scheme, failure to meet WFD targets, high costs (later on, e.g. lawsuits)
	18b		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
	18c		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
	18d		What learning points were there in the process and which key moments were crucial for the progress?	▪ agreement on financing and goals (flexibility and commitment required) ▪ modification of goals; uncertainty
	19a	Success factors	What do those involved see as success factors for the scheme?	
	19b		Has the scheme been tuned to suit the target group?	Thinking from the perspective of what the farmers can do ▪ commitment of interest organisations
	19c		Did the process by which the scheme was developed contribute to its success?	
	19d		Do the benefits outweigh the costs?	
Sources ▪ Bibliography ▪ Interview(s)				

ANNEX 2 Completed fact sheets for the selected initiatives

no.	Indicators	Fact Sheet 1	Farmers as the Water Managers in the Vecht Valley
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	Farmers as the Water Managers in the Vecht Valley (the project was expanded in 2010 to include the agrarian nature association (ANV) De Amstel project area)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Vecht Valley (Utrecht province)
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to land owners' land/water management to improve the quality of (water-related) ecosystem services.	▪ Creation and management of environmentally friendly banks, small residual plots, fishponds and fish-friendly culverts. ▪ Sharing knowledge is a subsidiary objective of the WFD (Water Framework Directive) innovation programme.
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Aquatic ecology and water retention
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Terrestrial nature, landscape and recreation
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	The WFD and NAAW (National Administrative Agreement on Water) + water management plans.
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in? Is there a link with other area-based projects such as NEN or water retention?	The project is part of the WFD innovation programme. Parties involved: *Agrarische Natuur- en Landschapsvereniging Vechtvallei* (ANLV VV), AGV, Waternet, Veelzijdig Boerenland, Alterra, Watermaatwerk.
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Subsidy from the WFD innovation programme (60%) and the Amstel Gooi en Vecht water board (40%).
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	Environmentally friendly banks along waterways in rural areas + residual plots of land, fishponds and fish-friendly culverts
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Financial compensation for farmers for creation, management, fencing off nature-friendly banks, hours spent and training courses.
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Amstel Gooi en Vecht Water Board

11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Farmers in the area covered by ANLV VV (and ANV De Amstel)
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	▪ Modified layout setting up more than the legally required minimum amount of bank (NVO = nature-friendly banks) of at least 400m^2. The NVO must be 2 to 3m wide and be laid to at least 20cm below the water level ▪ Modified (ecological) management of the nature-friendly banks ▪ Fencing off the NVO if cattle are present on the land
11c		What is the amount for the scheme? With what frequency is it paid out?	▪ **Hourly rate** (training and presence at meetings): €27.50 per hour; ▪ **Earthmoving:** €6 per m^3; ▪ **Fencing off**: €290 per 100m, temporary removal and replacement of fencing for maintenance: €27.75 per 100m; maintenance of fencing €38 per 100m; ▪ **Loss of income:** €1,024 per hectare per year (with no change of designated function), or 85% of the sale price on the free market if the function changes from agriculture to water; ▪ **NVO (nature-friendly banks) management**: €100 per 100m per year (max); ▪ **Management of small residual plots**: €1239 per hectare per year using a ditch mower; €1449 per hectare per year using a trimmer (maximum); ▪ **Dredging the NVO with a dredging jet**: €30 per time. ▪ **Culverts**: costs of altering, laying or moving culverts will be recompensed.
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there to leave it?	5 + 7 years (unilateral option for the farmer to leave the scheme after 5 years; water board commits for 12 years)
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing scheme that is currently (2010) being extended to nearby areas (ANV De Amstel)
12b		If it already exists, to what extent is the scheme being taken up?	1.5 ha banks, 29 unused pieces of land, 19 fish-friendly culverts, 8 fishponds (situation as of January 2010)
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	Objective is 5 ha (and 50 km) of environmentally friendly ditch banks being managed
12d		What is the starting date of the scheme?	2009 in the Vecht Valley (extension to ANV De Amstel took place in 2010)
12e		What is the (intended) end date of the scheme?	2014-2021, depending on the options for the farmers to leave unilaterally after 5 years. (the period will be shifted up by 1 year for the other subareas involved, i.e. 2015 to 2022)
12f		What will happen when the scheme is finished?	Unknown
X			

13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	Yes, it was only taken up after the ANLV VV became involved and the scheme was modified; the ongoing arrangements had not been used at all.
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	The scheme is also being opened up for other areas and a number of aspects are being changed. For instance, other types of banks (profiles) are possible within the 'new' scheme.
13c		Are potential beneficiaries aware of the scheme? How was that done?	Yes, communication with the farmers was also handled by the agrarian nature associations (ANVs).
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	Yes, there is support, generated e.g. because of: ▪ The scheme; practical feasibility (in terms of operational management) and financial compensation. Guaranteed by the efforts of the ANLV VV in helping get the scheme set up; ▪ Communication and unburdening (including via ANLV VV); ▪ Retention of the designated 'agricultural' function; ▪ Tailored to suit with 'digging = filling' (subject to provisions); ▪ Contributions to nature
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	Yes, the unique nature of the project (wet buffer zone strips managed by the farmers) means that others - including water boards - are following it with interest. Its success (and budgetary scope) were reasons for expanding it to ANV (agrarian nature association) De Amstel.
X			
14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	No, the remunerations cover a large proportion of the costs. The beneficiary is running a risk, because it is difficult to restore the water's edge areas back to being grassland once they have been dug out. Although the designated 'grassland' function remains unchanged, the soil characteristics are difficult to restore.
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	see 14a
14c		What costs are there for the party offering the scheme?	This project has been 60% funded (to the tune of €0.9 million) by the WGF innovation subsidy, which means that the costs for the water board are relatively low.
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	"Digging = filling" (subject to conditions). Other (wider culverts that are easy to drive over). Contributions to nature (the farmers involved are often proud of it and like it a lot)

15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	▪ Realisation of wet buffer zones for aquatic and terrestrial nature, and water retention (this may not be feasible in the case of purchased land). ▪ Can be implemented rapidly. ▪ In the vanguard - role model.
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	In the Vecht Valley area, there were various SAN and PSAN (*national and provincial Agrarian Nature Management Subsidy schemes*) packages until 2010, such as hedgerows and foraging areas for geese. As far as is known, these schemes did not conflict with this scheme, although the transition to SNL (*Agrarian Nature and Landscape Management Subsidy*) did cause problems because the width of the field borders was changed from 1m to 2m, thereby overlapping with the foraging areas for geese.
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	As far as is known, yes. This will become clearer after 5 years, when the farmers involved must decide whether they want to continue with it for another 7 years or leave the scheme.
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	▪ Realistic plans and objectives ▪ Long-term arrangement (guaranteeing sustainability and continuity) ▪ Scheme was drawn up without consulting the farmers (or their interest groups) ▪ Measure must fit in well in practical terms ▪ Change of designated land function from 'agricultural' to 'water'. ▪ Cooperation means sharing the costs: the farmers are therefore also paying for meetings etc. (just as the water boards involved are). ▪ Poor communication (want right contacts, in the farmers' language, minimised burden of red tape and as much contact as possible via ANLV VV) ▪ A lot of red tape (including the permit request) ▪ Inflexible scheme (more possibilities if it could be tailored to suit) ▪ Slow throughput time (decision = action: spade in the earth and let's see cash) ▪ Conflicts with other subsidy schemes
18b		What are the risks of the scheme?	Farmers: ground is difficult to restore after 5 or 12 years if this is desired. Water board: sustainability / continuity is not definitely assured.
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	Not as far as is known (see also 16)

18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	Unknown
18e		What learning points were there in the process and which key moments were crucial for the progress?	Cooperation with ANLV VV Subsidy allocation Various meetings with ANLV VV and farmers
19a	**Success factors**	What do those involved see as success factors for the scheme?	see 18a
19b		Has the scheme been tuned to suit the target group?	Farmers, focusing on ANV members (ANLV VV and ANV De Amstel)
19c		Did the process by which the scheme was developed contribute to its success?	Yes.
19d		Do the benefits outweigh the costs?	This will have to be shown by evaluations in the future
	Sources	Interview: Nicolaas van Everdingen Interview: Henk Jan Soede Foundation for Applied Water Research (STOWA), 2010 (in prep.)	

Success and failure

The key success and failure factors are described below.

Realistic plans and objectives.

When plans are being drawn up, the objectives must be realistic for the agricultural interest groups and the farmers. Aiming too high (too many kilometres of banks or too much loss of land area) gives the impression 'that something is being imposed upon you'. This will lead to resistance: *"Nice thinking, but not on my land"*.

Long-term scheme

A scheme should preferably run for a number of years. AGV has committed to this scheme for a minimum of 12 years. There are two important reasons for his:

- Accustomisation: after the first batch of farmers have used it successfully, it is more likely that others will become enthusiastic about it;
- Financial certainty. Farmers are often only ready to take up a scheme if the financial certainty is guaranteed for several years. This is particularly the case for measures affecting the land layout, such as setting up nature-friendly banks and shores.

Schemes should be set up (or modified) in consultation with the agricultural interest groups

- Management of the bank/shore areas was not integrated in precursor scheme, which was not a success. This has now been included, after discussions with ANLV VV;
- The banks should not necessarily have to be shallowly sloping, as prescribed in the SNL (agrarian nature and landscape management subsidy). This is because shallower banks take up (even more) space and do not contribute directly to the aquatic objectives;
- Farmers are cautious about having a 'nature' function defined on their land as they may only later discover the restrictions this will entail. It is therefore important that the designated land use function remains unchanged;
- Attending information evenings, discussions and a short course on water management - this all takes time. This should also be compensated.

Clear communication

- Communication must be limited as far as possible to what is necessary and should focus on the practical side. Excessive, unnecessary, incorrect or slow information causes disruption and reduces the amount of background support. This applies not only to communication to farmers but also to that for the agricultural interest groups.

Customisation

When working out the details at ground level, there must be scope for the farmer's ideas and input**.** Efforts should be made in a talk 'round the kitchen table' to improve the ecological structure (environmentally friendly banks and shores etc.), but the farmer's wishes should also be considered. This could for example involve investigating measure that would help the farming operations.

Quick throughput time.

There must not be too much time between the moment of approaching an agricultural interest group and setting up (wet) hedgerow buffers. The 'momentum' is also important for getting information through to their members. This applies even more strongly for the agreements made with the farmers. As soon as a (draft) agreement has been reached, for instance after a 'kitchen table' meeting, the wheels must get in motion quickly. In general, the farmers will then prefer to get moving 'straight away'. If they then have to wait months for permits and the appropriate season (see the nature calendar) in which the work is permitted, this may result in people not understanding and dropping out of the scheme. Even a gap of two to three months feels too long.

no.	Indicators	Fact Sheet 2	Actief Randenbeheer Brabant (Active Border Management in Brabant)
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	ARB - *Actief Randenbeheer Brabant* (Active Border Management in Brabant)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Brabant
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to land owners' land/water management to improve the quality of (water-related) ecosystem services.	Field borders/hedgerows (wet buffer areas and FAB pilots)
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Objective was initially to improve water quality by reducing levels of nutrients and emissions of crop protection agents. The aim later shifted to encouraging nature.
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Water quality
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	NEN (National Ecological Network - *EHS: Ecologische Hoofdstructuur*), WFD (Water Framework Directive - *KRW: kaderrichtlijn water*).
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	Part of the framework of 'green and blue' services from the Province of Brabant. Province of Brabant Brabant water boards ZLTO (*association of agricultural businesses in the south of the country*) Ministry of Agriculture, Nature and Food Quality (LNV) RIWA Maas Various survey/research organisations and bodies. Goal: Authorities: water quality improvement, water management and ecology/value for nature. ZLTO: investigation and implementation of payments for greater than the legally required amount of hedgerow/field edges to be set out and maintained.
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Province of Brabant Brabant water boards ZLTO LNV RIWA Maas The project is largely being financed by ILG (subsidies for layout of rural land), POP (rural development programme) and contributions from water boards and the province. National authorities and the ZLTO have also contributed. The project can be subdivided into three phases (pre-2006, 2006 and post-2006); the funding in these phases differs.
X			

8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	Setting up and managing field borders/hedgerows width 4m (phase 3, since 2007).
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	▪ Arable land = €0.70 per running metre (2007: €0.60). ▪ Grassland = €0.35 per running metre (2007: €0.30).
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Province of Brabant, Brabant water boards and ZLTO
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Farmers in Brabant
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Setting up environmentally friendly management of field borders/hedgerows
11c		What is the amount for the scheme? With what frequency is it paid out?	Phase 3 (from 2007): 10 million euros
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	The current scheme runs until 2014.
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing and highly successful scheme
12b		If it already exists, to what extent is the scheme being taken up?	There are now more than 1200 km of hedgerows and similar
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	The scheme has provisionally been closed for new participants.
12d		What is the starting date of the scheme?	2001 (phase 1), 2006 (transitional phase 2), phase 3 in 2007
12e		What is the (intended) end date of the scheme?	2014
12f		What will happen when the scheme is finished?	Given its success, it will probably be continued with new contracts (and possibly also in scaled-up form)
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	
13c		Have potential beneficiaries been made aware of the scheme? How?	
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	
X			

14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	
14c		What costs are there for the party offering the scheme?	
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	
18b		What are the risks of the scheme?	
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
18e		What learning points were there in the process and which key moments were crucial for the progress?	
19a	**Success factors**	What do those involved see as success factors for the scheme?	
19b		Has the scheme been tuned to suit the target group?	
19c		Did the process by which the scheme was developed contribute to its success?	
19d		Do the benefits outweigh the costs?	

	Sources	Interview: Nicolaas van Everdingen Interview: Henk Jan Soede Foundation for Applied Water Research (STOWA), 2010 (in prep.)	

Success and failure factors

The success and failure factors found in the literature or stated by the interviewees were:

- Attention to careful interaction between the parties, in particular between the authorities and the farmers. A relationship of trust is crucial;
- Experiments in the field have a motivational effect and add dynamism. The '*learning by doing*' approach, rather than performing detailed studies beforehand, can result in unexpected and promising innovations;
- The bar was not set too high early on. This creates a lot of interest and a lot of participants. Then you can start optimising it and developing it further together with all the participants;
- Integration of multiple objectives lowers the costs per funding body.
- It is possible to finance integrated projects using ILG funds. The disadvantage of regional financing via ILG is that the aims / results / expectations from projects have to be high if they are to be considered for funding, or in other words: projects such as these must realise the maximum (most effective) that is achievable. ARB is instead a prime example of a low-threshold project aimed at a large group and generating a lot of enthusiasm.

A major downturn and drop in confidence arose during the transitional phase between the first and second projects. There was then some discontinuity, particularly around the integration of new objectives. Farmers perceived the inclusion of biodiversity objectives (as a consequence of the ILG scheme being used) as a diktat that led to many people dropping out. Others continued their participation and started negotiating, as a result of which the consequences for the management aspects were made somewhat more flexible.

There were various reasons why farmers saw this project as beneficial. A survey carried out by the project looking at their reasons (Bouwman *et al.* 2007) showed that the four most significant reasons for taking part were:

1. Clean water is important for agriculture;
2. It is good for the image of farmers;
3. The remuneration was fair and reasonable;
4. Farmers were free to choose whether or not to take part.

Farmers' enthusiasm for the project at the start of the second phase in 2007 was limited. This was above all due to the addition of biodiversity development, for which a rule was added stating that mowing was only permitted at most once a year after three years. For existing participants who had already been taking part for over three years, this limitation therefore applied with immediate effect. Moreover, there was uncertainty about the financing. The net result was that participation halved. A number of modifications were made to the project in 2007/2008. Practical feasibility reasons dictated that mowing would still be permitted up to twice a year during the biodiversity development phase. The remuneration for management was also adjusted upwards. Enthusiasm and positive responses then grew again in 2008 and 2009. The result was expansion to 900 and 1350 kilometres respectively. The new policy means that the farmers are finding it more difficult to maintain the field borders well and the increased pressure from weed species is a nuisance. Some farmers are now going into the fields to remove thistles from the edge of the hedgerow zone manually. Nevertheless, they want to maintain their involvement or even expand it.

no.	Indicators	Fact Sheet 3	Green and Blue Services (GBS) in Overijssel
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	GBS *(nature restoration services)* Overijssel (P6 / FS 3)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Province of Overijssel
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	Landscape management of landscape elements to increase landscape quality and to retain cultural landscape = GBS, “green and blue services” *(GBD = groenblauwe diensten)*.
X			
4a	**‘Management problem’ / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Green and blue services: landscape management (e.g. walking routes, nature-friendly banks and shores) “Real” blue services (which require active management): by water boards
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Blue services: water storage/retention
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	WFD (Water Framework Directive - *KRW: kaderrichtlijn water*)
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	Stand-alone scheme The GBS scheme has been set up by Landscape Overijssel and *Natuurlijk Platteland Oost* (Natural Countryside East: umbrella organisation of Agricultural Nature Associations) in cooperation with the Province of Overijssel into the “Overijssel Green and Blue Services Foundation” (*Stichting GBD*), with the aim of ensuring a GBS system throughout the province.
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Money provided by municipalities based on a landscape development plan (LOP); it is doubled by the Province of Overijssel and paid out by the National Green Fund. The water boards are interested in organising the 'actual' blue services, which is why this responsibility lies with the water boards.

X			

8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	Landscape packages for the construction & management & maintenance of landscape elements (canals, wooded banks, hedges, pollard willows)
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Local socially-based compensation system through the municipalities.
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Green services: province (initiator) + municipalities (initiator) via the Overijssel Green and Blue Services Foundation Blue services: water boards (initiator)
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Landscape elements as indicated by the municipality belonging to: - landowners - leaseholders
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Construction, management and/or maintenance of landscape elements
11c		What is the amount for the scheme? With what frequency is it paid out?	20 to 30-year contracts
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	At least 20 to 30 years (sustainable source of finance because it is a long-term maintenance process, via financial support); leaving the scheme is possible in the event of moving or death.
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing
12b		If it already exists, to what extent is the scheme being taken up?	3 municipalities are still hesitant; 22 municipalities have invested 30 million in total
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	Contracts will be signed with landowners in the course of this year.
12d		What is the starting date of the scheme?	2006 (pilots were started in 2003)
12e		What is the (intended) end date of the scheme?	Scheme will certainly last until 2013

12f		What will happen when the scheme is finished?	Will examine it further, depending on available monetary flows for GBS.
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	The working plans can be adapted to suit each individual party.
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	No
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	Individual one-on-one talks between farmers and someone they know. On top of that, area meetings have been organised too.
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	Municipalities are highly interested: control of area plans.
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	Farmers are interested.
X			
14a	**Beneficiaries' costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	No: management and upkeep with compensation
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	No
14c		What costs are there for the party offering the scheme?	Investment costs by municipalities
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	Making a contribution to the landscape, with remuneration
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land (paying in one go instead of 5 times is cheaper, because of the transaction costs) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	Municipalities can control the area plans.
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	PAN and PSAN (*Provincial Agrarian Nature Management Subsidy scheme*): national subsidy scheme with 6-year contracts; however, it is not possible to apply cumulatively with the GBS.
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	Probably, yes
X			

18a	**Failure factors**	What do those involved see as failure factors for the scheme?	(Still) unknown. Green and "actual" blue services should preferably combined (= clearer and more transparent for the farmers / landowners), but that is not necessarily how it works in the administrative departments
18b		What are the risks of the scheme?	- Cash flows may run out
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	No
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	-
18e		What learning points were there in the process and which key moments were crucial for the progress?	- Setting up landscape packages - Municipal investment and implementation
19a	**Success factors**	What do those involved see as success factors for the scheme?	- Municipalities and farmers are interested in GBS - One-on-one talks with farmers and area meetings
19b		Has the scheme been tuned to suit the target group?	Agricultural nature associations are committed and are in contact with farmers.
19c		Did the process by which the scheme was developed contribute to its success?	Municipalities and farmers have become interested
19d		What plans are there for the future of the scheme?	Hopefully, continuation of the scheme - but that depends on the monetary flows.
	Sources		* Website http://www.groeneblauwedienstenoverijssel.nl/groene-en-blauwe-diensten-.html * Erbert Jongsma – project manager, *Stichting GBD* (06-12999493)

The GBS Overijssel scheme was set up in 2006, after experience was acquired with pilots that were carried out from 2003. Green + Blue landscape management services are provided by municipalities through the Stichting GBD, 'real' blue services - such as water storage - are controlled by the water boards.

Success factors
- Municipalities are interested in making these investments
- Setting up and offering landscape packages
- Local socially-based remuneration system through municipal investments
- Individual one-on-one talks between farmers and people they know (public relations officers)
- Area-based meetings with farmers

Failure factors
- Both green and 'real' blue services should preferably be combined (= clearer and more transparent to farmers / landowners), but this is not feasible from an administrative point of view.
- Monetary flows may run out in the long run

"Green and blue services should preferably be combined, but that's not necessarily how it works in the administrative world." (Erbert Jongsma)

no.	Indicators	Fact Sheet 4	Green and Blue Services (GBS) in Gelderland
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	GBS *(nature restoration services)* Gelderland (P10 / FS4)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	The province of Gelderland
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	Landscape restoration and landscape management in order to raise the levels of landscape quality and retain cultural landscape elements.
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	- Water quality
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	- Water storage / retention - Nature - Landscape / recreation
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	Landscape development plans (LOPs) and area implementation plans (GUPs)
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	The scheme arose from the changes to the Provincial Long-Term Plan (PJMP) subsidy framework. The purpose of the scheme is to combine budgets for landscape management and landscape design, using the municipal landscape development plans (LOPs) as the starting point. LOPs are seen as being the right policy basis for GBS and the province of Gelderland wanted to decentralise these services to the municipalities. In addition, water boards are responsible for providing the 'blue' services, because they are more familiar with these services. A decision was taken together with the water boards to set up a two-year project for specific blue services: which blue services they will be can vary from one water board to another.
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	8 million euros on behalf of the Province of Gelderland (50%) plus financing by municipalities and local parties (50%) through area implementation plans (GUPs); the water boards' own contribution is 50% and that of the provincial authorities is 50%.
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	Green services: green landscape elements such as wooded banks, hedges, pools and walking routes across farmland. Blue services: 4 measures: field border and hedgerow management, processing cuttings, nature-friendly banks (NVOs), water management (weirs). These are pilots that were prepared in 2010 and for which schemes are currently being described.

9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Management fees in line with market rates for setting up landscape elements and the depreciation of the ground, and for (water) management.
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Province (initiator) Municipalities (co-financers) are central in the implementation via a landscape fund, along with local parties that jointly draw up an area implementation plan (GUP). Water boards are responsible for implementing the 'blue' services.
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Municipalities and water boards (implementation) and landowners (users)
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Landscape restoration and water management
11c		What is the amount for the scheme? With what frequency is it paid out?	Green services: remunerations are the same as those in the SNL (Agrarian Nature and Landscape Management Subsidy) catalogue. One-off payment for long-term contracts, annual payments for short-term contracts. Blue services: descriptions of the schemes by the water boards are still being made. Unknown so far.
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	Green services: 12 to 24-year contracts: if short-term contracts turn out to be more successful (e.g. for providing access to walking routes), 6-year contracts will be signed Blue services: unknown - see 11c
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Proposal
12b		If it already exists, to what extent is the scheme being taken up?	Green services are currently implemented at municipal and water board level and, at a small scale, being communicated to farmers. Water boards are currently setting up pilots to acquire experience with blue services.
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	Depends on the monetary flows = defining factor for future actions; if the monetary flow is positive, it is expected that a lot of municipalities and farmers will join in or will continue to participate.
12d		What is the starting date of the scheme?	Municipalities were informed and encouraged to set up area implementation plans at the beginning of 2010; using the area implementation plans in practice immediately would be preferable.
12e		What is the (intended) end date of the scheme?	The area implementation plans will be put into practice as of 2011 in any event; there is no end date because that depends on the cash flows (see 12c).
12f		What will happen when the scheme is finished?	It is expected that the provincial budgets for municipal landscape projects (*Gemeentelijke Landschapsprojecten*, GLPs) will be combined with the GBS budgets in 2011 and that the water boards' blue services will be directly involved in this.
X			

13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	See 6
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	See 12f This also depends on developments in the Common Agricultural Policy (CAP).
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	Municipalities: municipalities have been informed and encouraged by the implementation team (made up of the province and *Stichting Landschapsbeheer Gelderland*), which obtained information from other Dutch schemes. Landowners: a list of farmers still has to be drawn up, after which group meetings will be organised
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	It is expected that there will be considerable support for this among farmers, given the water boards' experience from the field and the interest shown by other parties
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	Support from municipalities for joining in: 26 municipalities are interested, because this will give them more control and influence over landscape policy than provincial schemes do.
X			
14a	**Beneficiaries' costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	Municipalities: invest a lot of money Landowners: unknown
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	Municipalities: drawing up area implementation plans, communication & cooperation, implementation Landowners: unknown
14c		What costs are there for the party offering the scheme?	Province = 50% contribution to municipalities (50% contribution themselves) and 50% contribution to water boards (50% themselves too)
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	Municipalities: more control of landscape policy Landowners: unknown
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land (paying in one go instead of 5 times is cheaper, because of the transaction costs) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	Province (green services): leave the implementation to the municipalities Water board (blue services): unknown
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	No
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	Landowners: unknown
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	- A great deal of communication is needed between municipalities - Time-consuming process because a lot of municipalities are involved and because of cutbacks within municipalities etc.

18b		What are the risks of the scheme?	- Municipal implementation also means having to pay for it too - Levels of knowledge vary from one municipality to another - Setting up area implementation plans takes a lot of time - A lot of different schemes will be set up by municipalities - Contracts are too long = no support for that among farmers - Retention of the scheme depends on monetary flows - If the biodiversity is improved (e.g. "red list" endangered species), then the land goes irreversibly back to nature (=diminished value) - Continuing poor communication between municipalities and water boards - Getting green and blue services to merge and cooperate is a difficult process - Complexity / many questions about details of BD in practice after the pilots have been carried out
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	Landowners: subsidies available from the NEN (National Ecological Network, *EHS: Ecologische Hoofdstructuur*)
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	Unknown
18e		What learning points were there in the process and which key moments were crucial for the progress?	- Workshops with municipalities promote cooperation and communication - Working together is very important!
19a	**Success factors**	What do those involved see as success factors for the scheme?	- Cooperation using the implementation team to monitor progress, for instance - Practical measures do result from the scheme - Pilots that are expected to be successful
19b		Has the scheme been tuned to suit the target group?	The water board is focusing on farmers who are interested in the pilots
19c		Did the process by which the scheme was developed contribute to its success?	- Implementation team has a positive effect - Flexibility of measures; separation of construction and maintenance of green services = more practical and financially feasible for municipalities.
19d		What plans are there for the future of the scheme?	Include budgets for landscape targets from the Provincial Agrarian Nature Management Subsidy scheme (PSAN) in the area implementation plans. More cooperation with water boards, as a single common provincial vision is preferred. The water boards are currently still on a different track, because their water management is in the experimental phase and because they are more familiar with blue services.
	Sources		* Websites: http://www.groenloket.nl/index.php?437 http://www.gelderland.nl/eCache/DEF/11/173.html * Erik van Eek – Stichting Landschapsbeheer Gelderland (+31(0)26-353-7444) * Sjors Leiendekker – architect of the scheme – Province of Gelderland (+31(0)26-359-9560 / +31(0)6-502-73174) * Peter Duteweert – Veluwe Water Board (+31(0)55-527-2120)

The Gelderland GBS scheme was started in 2010. Currently, the focus is on developing area implementation plans (GUPs) among interested municipalities. Municipalities and water boards have also started promoting GBS among farmers. It is expected that the blue services, which are currently managed by the water boards, will be directly included in the area implementation plans by 2011. The water boards are currently still on a different track, because their water management is in the experimental phase and because they are more familiar with blue services. So far, the success and failure factors of the scheme among farmers are unknown. However, success and failure factors for the setup and organisation of the scheme can be seen.

Success factors
- Workshops with municipalities (using implementation teams) have a positive effect on cooperation and communication.
- Decentralisation and the opportunity to increase the levels of control encourage municipalities to join in.
- Cooperation using the implementation team is useful for monitoring progress, for instance
- Flexibility of measures; separation of construction and maintenance of green services = practical and financially feasible measures for the municipalities.
- It is very important that the parties work together!

Failure factors
- A great deal of communication is needed between municipalities
- It is a long-term process because a lot of municipalities are involved and because of cutbacks within municipalities etc.
- Variable levels of knowledge within municipalities mean that knowledge transfer is a time-consuming process

Risk factors
- Municipal implementation also means having to pay (a lot) for it too
- Municipalities need a lot of time to set up area implementation plans
- A lot of different schemes will be set up by municipalities
- Contracts are too long = no support for that among farmers
- Retention of the scheme depends on incoming cash flows
- If the biodiversity is improved (e.g. "red list" endangered species), then the land goes irreversibly back to nature (=diminished value)
- Continuing poor communication between municipalities and water boards
- Getting green and blue services to merge and cooperate is a difficult process
- Complexity / many questions about details of BD in practice after the pilots have been carried out

Statements
“The pilots are going to be successful, but then what? I don't know.” (Peter Duteweert)

“A lot of communication is needed with all these municipalities, but it also lets us provide tailored solutions.” (Erik van Eek)

no.	Indicators	Fact Sheet 5	Green and Blue Services (GBS) in West Utrecht
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	Green and Blue Services *(nature restoration services)* Experiment for West Utrecht (P11 / FS5)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	An extensive natural peat meadowland area between the Waver and the Oude Rijn, the Vecht and the Kromme Mijdrecht
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	The Province of Utrecht wants to give farmers and other private landowners a bigger role in the management and development of rural areas, with the objective of realising landscape targets (retention and improvement of landscape quality)
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Blue services particularly involve (surface) water, including water storage
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Green services are activities related to nature, the landscape and the accessibility of rural areas.
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	Subsidy regulation on the structure of rural areas, Province of Utrecht 2006
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	Cooperative agreement between Province of Utrecht and HDSR (the *Stichtse Rijnlanden* regional water board) The agricultural nature associations Lange Ruige Weide, Lopikerwaard and surrounding area and De Utrechtse Venen are working together in this project; the National Service for the Implementation of Regulations (DR) and the Government Service for Sustainable Rural Development, Western Region (DLG-West) are providing support. The regional and local authorities want to use the pilot to gain experience in the realisation of 'green' and 'blue' services and targets from the area programmes.
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	- Resources from the governmental coalition agreement for 2003 to 2007 - Resources from HDSR (Stichtse Rijnlanden regional water board): Open Water and Nature-Friendly Banks, in limited areas. - Resources from the AVP (Agenda for a Living Countryside) programmes 'De Venen' and 'De Waarden'
X			

8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	Green and blue services: - Walking Paths Service - Geriefhoutbosje Management Services - Open Water Expansion Services - Ditch-side and Nature-friendly Banks Management Services - Dredging Services - Species Habitat Management Services In addition, two 'cattle grid' and 'cattle drinking place' auxiliary services can be requested, but only in combination with another GBS.
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Management fee
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Clients: province and water board (financer of the experiment and requesters of services) Contractors: the 3 agricultural nature associations Lange Ruige Weide, Lopikerwaard and surrounding area, and De Utrechtse Venen. The agricultural nature associations have set up the West Utrecht service desk for the implementation (provider, contractor, control) Support provided by: The National Service for the Implementation of Regulations (DR) (contracts and payments) and the Government Service for Sustainable Rural Development Region West (DLG-West) (auditing the checks)
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Farmers and other private landowners
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Management and maintenance
11c		What is the amount for the scheme? With what frequency is it paid out?	This varies from service to service (see 8), depending on the expenditure required
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	Five-year contracts are signed.
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing
12b		If it already exists, to what extent is the scheme being taken up?	300 contracts have currently been signed
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	Potential = 50 additional contracts More contracts can be expected if more services are added.

12d		What is the starting date of the scheme?	2008 / start of 2009
12e		What is the (intended) end date of the scheme?	2014
12f		What will happen when the scheme is finished?	The experience will be used in setting up tailored regional SNL (agrarian nature and landscape management subsidy) solutions in 2010: - Integration of green and blue services and tailored regional solutions in the long run, while observing the agreements that have been made - In anticipation of tailored regional work, no extension of the working area is expected
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	No
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	The number of services may be increased
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	A great deal of communication: 1) Inventory of the demand for green and blue services and the requisite level of financing 2) Information evenings arranged by agricultural nature associations (they are closest to the farmers) 3) Registrations came in: brochures were produced and meetings organised
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	300 contracts have been signed; a great deal of interest has been generated (see 13c)
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	- It fits in with business operations - It fits in with the farmers' philosophy - Farmers can choose the 'best' service for themselves
X			
14a	**Beneficiaries' costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	Depends on the service
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	Depends on the service
14c		What costs are there for the party offering the scheme?	Investment, but the compensation is intended to cover this

15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	It fits in with business operations and farmers have the opportunity to choose a service for themselves
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land (paying in one go instead of 5 times is cheaper, because of the transaction costs) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	Realisation of area-based programmes
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	Yes, but through other schemes that do not directly comprise green or blue services
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	Yes for some of them (they have joined in), but not for others (they have not joined).
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	Not all services are used
18b		What are the risks of the scheme?	Long-term financing
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	Other schemes that have different remuneration.
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	Yes, because 5-year contracts are often not possible for leased land.
18e		What learning points were there in the process and which key moments were crucial for the progress?	- Communication is tuned to suit the farmers through inventories and meetings
19a	**Success factors**	What do those involved see as success factors for the scheme?	- It fits in with reality / its suitability - Not much to organise/ little administrative work - 1 point of contact = 1 service desk
19b		Has the scheme been tuned to suit the target group?	Yes, farmers were involved in the realisation of the various services that are currently offered
19c		Did the process by which the scheme was developed contribute to its success?	Yes; communication at an early stage
19d		What plans are there for the future of the scheme?	Depends on the budgets / monetary flows

	Sources		* Websites http://utrecht.regelingenbank.eu/regeling/?id=685 http://www.loketgbd.nl/ http://www.deutrechtsevenen.nl/beheer/groenblauwe-diensten/ * Articles through http://www.provincie-utrecht.nl/ - Cooperative agreement between Province of Utrecht and the De Stichtse Rijnlanden regional water board: Green and Blue Services Experiment in West Utrecht (2008RGW200, Appendix) - Appendix 1: Discussion Memorandum on Landscape Funding (2009RGW39, Appendix 1) * Jaco de Groot – Green and Blue Services project manager (+31(0)348-421344 / +31(0)6-292-19492)

The Province of Utrecht wants to give farmers and other private landowners a bigger role in the management and development of rural areas, with the objective of realising landscape targets (retention and improvement of landscape quality); Green and Blue Services in West Utrecht originated from that. The scheme began at the start of 2009; currently, 300 five-year contracts have been signed.

Success factors

A great deal of communication at an early stage → Communication process:

1) Inventory of the demand for green and blue services among farmers and their required level of financing
2) Information evenings arranged by agricultural nature associations (these associations are closest to the farmers)

- Distribution of brochures and keeping organising meetings
- Scheme fits in with business operations
- Scheme fits in with the farmers' philosophy
- Farmers can decide for themselves what service fits in best with their business operations
- Not much to organise / little administrative work; this is done by others
- 1 point of contact for the farmers = 1 service desk

Failure factors

- The demand for services varies from service to service
- Long-term financing unknown
- 5-year contracts for services are not possible for leased land

"What will happen to the scheme in five years' time is unknown." (Jaco de Groot)

no.	Indicators	Fact sheet 6	Functional agricultural biodiversity in Hoeksche Waard
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	FAB – Hoeksche Waard (*functional agricultural biodiversity*)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Hoeksche Waard
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	Functional agricultural biodiversity 1. Concrete implementation; 2. Demonstration of the effect; 3. Reduced use of crop agents; 4. Biodiversity area plan; 5. Utilisation of the results;
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Water quality / Environmental quality
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Maintenance
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	WFD (Water Framework Directive - *KRW: Kaderrichtlijn Water*)
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	▪ Project leader: LTO Nederland. ▪ Area coordinator: DLV (*Agricultural Extension Service Netherlands*). ▪ Research institutes: NIOO (*Netherlands Institute of Ecology*), PPO (*Applied Plant Research*) and PRI (*Plant Research International*). ▪ Participating companies ▪ Hollandse Delta water board; ▪ Ministry of Agriculture, Nature and Food Quality (LNV); ▪ Ministry of Housing, Spatial Planning and the Environment (VROM); ▪ Arable Farming Marketing Board; ▪ Horticulture Marketing Board; ▪ Rabobank.
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Co-financing: Ministry of Agriculture, Nature and Food Quality; Ministry of Housing, Spatial Planning and the Environment; Arable Farming Marketing Board; Horticulture Marketing Board; Rabobank.
X			

8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	Setting up FAB field margins/hedgerows. Farmers are responsible for management (sowing, cutting and removal) for themselves, but are given advice about FAB (*Functional Agricultural Biodiversity*).
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	€500 per kilometre
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	LTO (*Agricultural and Horticultural Organisation Netherlands*)
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Farmers in the Hoeksche Waard area
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Setting up 3m wide FAB buffer strips (sown with a selected flower mixture) and modifying their use of crop protection agents.
11c		What is the amount for the scheme? With what frequency is it paid out?	€500 for each kilometre of field margin; it is paid out once a year
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	
12a	**Status of scheme**	Is it an existing scheme or a proposal?	The scheme has already ended
12b		If it already exists, to what extent is the scheme being taken up?	The scheme has ended; 10km of (3m wide) hedgerows have been constructed.
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	The Ministry of Agriculture, Nature and Food Quality is currently working on a national FAB scheme. Its potential will be considerable.
12d		What is the starting date of the scheme?	FAB1: 2005-2007 FAB2: 2008-2009
12e		What is the (intended) end date of the scheme?	2009
12f		What will happen when the scheme is finished?	FAB has already finished: HWodka (*Hoeksche Waard op de kaart* = Hoeksche Waard on the map) is currently up and running. It aims to ensure agricultural optimisation. The Ministry of Agriculture, Nature and Food Quality is now working on a nationwide FAB scheme that is based on the Hoeksche Waard FAB
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	
13c		Have potential beneficiaries been made aware of the scheme? How?	
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	

13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	
X			
14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	
14c		What costs are there for the party offering the scheme?	
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	
18b		What are the risks of the scheme?	
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
18e		What learning points were there and which key moments were crucial?	
19a	**Success factors**	What do those involved see as success factors for the scheme?	
19b		Has the scheme been tuned to suit the target group?	
19c		Did process by which scheme was developed contribute to success?	
19d		Do the benefits outweigh the costs?	

	Sources	Interview: Nicolaas van Everdingen Interview: Henk Jan Soede Foundation for Applied Water Research (STOWA), 2010 (in prep.)	

Success and failure factors

Realistic project proposal.

The first proposal was not realised. The second project proposal was drawn up and implemented in 2004. Modifications compared with the previous project proposal were:

- The sustainable soil management item was dropped. It had turned out (provisionally) to be almost intangible.
- The project was placed in a broader context: Alterra, PPO (*Applied Plant Research*) and PRI (*Plant Research International*) were performing scientific research into functional agricultural biodiversity. The pilot in the Hoeksche Waard area was described as a practical study that fitted in with this research. The parties in question were involved in the project.
- Other parties were also involved in the project: the product marketing boards (for agriculture and horticulture), two ministries (Housing, Spatial Planning and the Environment; and Agriculture, Nature and Food Quality), and the Province of Zuid-Holland. Rabobank co-financed it (sponsor).
- A balanced budget (which was much lower than the one in 2002) was achieved, with appropriate financing.
- The organisational structure was improved: a steering committee was appointed. Each year, a new working plan was drawn up by the steering committee, in consultation experts. The advantage of this was that the expectations and the approach could be adjusted annually. For instance, a decision was taken to have a cost-benefit analysis performed.
- Communication became an important item. A specific communication plan was drawn up, in which target groups were stated and communications methods and resources indicated.

Scaling up: encouragement without obligation.

The farmers in the project already had positive opinions about FAB. In order to involve new farmers in FAB, the approach will be about not imposing obligations, but listing and demonstrating the advantages. Important advantages also include less crop protection agents being needed, and not leaving the (mandatory) cultivation-free zones fallow, but sowing them instead to ensure greater stability of the top edges of the ditch slopes.

Customisation

FAB has to be customised work: it is not possible to reason that FAB always works and so any setup and form of management will be suitable. It is particularly important to make sure that FAB fits in well with any existing issues and with the characteristics of the landscape. In other words, that it fits the known shortcomings in the landscape.

Combining functions

The construction of field margins or buffer strips means a loss of farmland and therefore a loss of income for farmers. Combining multiple functions on the hedgerow strips will provide extra ‘green services’, so that more parties may come into consideration for the co-financing.

Financing

The structure of the financing should therefore be variable. Another important aspect of the financing is the question of who will have to pay for the green services. FAB has benefits not only for the farmers but also for society, such as an attractive landscape, increased biodiversity, etc. There should be a national FAB scheme. The Ministry of Agriculture, Nature and Food Quality does in fact have a new scheme to encourage the construction of field margins. It should indicate (or the Green and Blue Services catalogue should indicate) when field margins/hedgerows really are 'FAB-worthy'. According to some people, the subsidy options for FAB are very limited, for instance because they are not included in the Green and Blue Services catalogue. However, this is not really the case. Although the concept of FAB is indeed not included explicitly in the catalogue, it does list plenty of packages of measures, and FAB can be included in one of these. A risk assessment has been carried out and a crop insurance policy has been taken out based on it. Should the trial - and therefore the crop - fail, the agricultural businesses will be covered for the damages. This might be useful for other pilots.

no.	Indicators	Fact Sheet 7	Incentive project for sustainable flower bulb cultivation in Drenthe & incentive scheme for marigold species
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	▪ Incentive project: Sustainable flower bulb cultivation in Drenthe (hereinafter: '1'); ▪ Incentive scheme: Marigold species (hereinafter: '2').
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Drenthe
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	1) More sustainable bulb cultivation by reducing crop protection agents, using other types of agents, a different composition of agents and re-assessment of environmental effects; 2) Planting marigolds in the year prior to the lily cultivation;
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Water quality (fighting the environmental burden caused by using crop agents)
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	not applicable
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	WFD (Water Framework Directive - *KRW: kaderrichtlijn water*)
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	The Project (1) and the Scheme (2) are interrelated Parties involved: ▪ water boards ▪ municipalities ▪ Drenthe environmental federation ▪ water supply company ▪ cultivators ▪ HLB research and consultancy in agriculture. Goal: improvement of the environment and water quality (authorities) improvement of the public image and environment and water quality (cultivators)

7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Growers: €240,000 Province of Drenthe: €300,000 Third parties: €160,000 Total for 2005 – 2007: €700,000
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	2) for lily cultivation: planting marigolds to fight threadworms
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	2) compensation of €650/ha (max. €60,000/year per farmer.
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Province of Drenthe (the party implementing it is HLB)
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Bulb farmers and lily growers
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	1) Reduction of crop protection agents and the use of alternative agents are encouraged (but not mandatory); 2) Planting marigolds prior to lily cultivation;
11c		What is the amount for the scheme? With what frequency is it paid out?	1) It is not so much a scheme as an incentive project. 2) €650/ha/year (compensation for additional costs incurred for changed use of agents)
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	1) reduction of environmental effects: 76% (2007), 81% (2008), 85% (2009) as a result of using other agents and re-assessment by CLM (*Centre for Agriculture and Environment*) 2) annual compensation (scheme lasted 2 years)
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	1) The project has been discontinued but continues to have benefits. 2) The scheme was stopped in 2007 after 2 years.
12b		If it already exists, to what extent is the scheme being taken up?	1) A great deal, given the results 2) Eight growers: 50 ha in 2006 and 2007 (107 ha in total), 25 ha in 2008 (no compensation), 0 ha in 2009 (target: 180 ha in 2006 and 2007)
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	1) Scaling up throughout the Netherlands? 2) No potential unless there is financial compensation of approx. €1,000 to €1,500 (compensation for additional costs incurred for changed crop agent use)
12d		What is the starting date of the scheme?	1) 2004 – 2007 2) 2006 – 2007

12e		What is the (intended) end date of the scheme?	already ended
12f		What will happen when the scheme is finished?	already ended
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	
X			
14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	
14c		What costs are there for the party offering the scheme?	
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	
X			

18a	**Failure factors**	What do those involved see as failure factors for the scheme?	
18b		What are the risks of the scheme?	
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
18e		What learning points were there in the process and which key moments were crucial for the progress?	
19a	**Success factors**	What do those involved see as success factors for the scheme?	
19b		Has the scheme been tuned to suit the target group?	
19c		Did the process by which the scheme was developed contribute to its success?	
19d		Do the benefits outweigh the costs?	
	Sources	▪ Interview by telephone: Harry Booij (Province of Drenthe) ▪ HLB, 2008. *Naar een duurzame bollenteelt in Drenthe* (Towards sustainable bulb cultivation in Drenthe), report on the results of the incentive project 2004-2007, on instructions from the Province of Drenthe; ▪ Provincial Executive of the Province of Drenthe (22/03/2006), Letter: *Financiële bijdrage ' duurzame bollenteelt in Drenthe*' (Financial contribution to 'Sustainable bulb cultivation in Drenthe'). ▪ Anonymous, 2006, Project *Duurzame Leliebollenteelt Drenthe* (Sustainable Lily Bulb Cultivation Project in Drenthe) (2005-2007)	

Incentive project

The *incentive project* (no financial compensation / subsidy scheme was a success. Participation was almost 100%, approx. 40 farmers; 25 were still involved at a later point. The reduction in the environmental burden caused by using crop protection agents was 76%-81%, due to fewer agents and agents that caused less of an environmental burden being used. An important factor in the success was that the farmers 'liked' the advisor who was hired in and that he had a feeling for what was going on in practice. He gave advice about the use of crop agents. The use of demonstration fields was a success too. Farmers could now see what the crop looked like when less agents or other agents were used. The project came about in consultation with the farmers.

Subsidy scheme

The 2-year subsidy scheme for growing marigolds once every two years was a partial success. 8-12 cultivators grew approximately 50 ha of marigolds in 2006 and 2007. The compensation was €650/ha. The estimated actual costs were however greater, at €1,000 to €1,500/ha. Approximately 25 ha and 0 ha of marigold species were grown without subsidies in 2008 and 2009 respectively.

Bottlenecks in the scheme are:

- Lack of familiarity with the crop;
- The risk of loss of crops caused by incorrect spraying;
- Uncertainty about killing threadworms (not all tests were 100% successful);
- Difficult to make arrangements with the landowners.
- Loss of scope for manure spreading (EU derogation legislation); lilies are not grown on the same land every year; the ground is often only leased by the growers. The land is often used as grassland in the following year. Fertilising grassland is a source of income for the owner;
- Changes to legislation about the periodic prohibition on ploughing up grass turned out to be restrictive for the cultivation of marigolds.
- The lily farmer has to lease the land for 2 years now; 1 year for the lilies, 1 year for the marigolds.
- The compensation did not cover the costs (e.g. incurred because of the above)
- Increasing prices for leasing the farmland

Success factors are:

- Cultivating marigolds reduces threadworm numbers, increases the lily bulb crop yields and reduces the use of agents in lily cultivation.
- A field coordinator / advisor with a feeling for what is going on in practice.
- A vanguard of initiators (authoritative farmers who are not afraid of implementing the required approach on a larger scale) are essential for scaling up.
- There was close cooperation with water boards, municipalities, the Drenthe Environmental Federation, waterworks and cultivators. The scheme therefore came about in consultation with other parties.
- Environmental pressure from public opinion - supported by measurements and knowledge - has driven the farmers' demand for more environmentally friendly crop agents. Because of this awareness, crop agent manufacturers are more inclined to implement changes.
- The costs (estimated actual costs approx. €1250/ha) are relatively low in proportion to the returns of lily cultivation (€45,000/ha)

no.	Indicators	Fact Sheet 8	Green and Blue Services (nature restoration services) for Oostbroekpolder and Blauwe Polder (Rijnland)
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	"Rijnland and farmers are making joint efforts with tailored solutions to produce natural water."
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Oostbroekpolder and the Blauwe Polder (Rijnland)
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	▪ Development of a system in which farmers voluntarily realise a number of targets, based on the WFD (Water Framework Directive- *KRW: kaderrichtlijn water*); ▪ Making use of 'water business plans' to gain insights into the possibilities and farmers' wishes regarding water management (and other quality aspects for the area); ▪ Further development of compensation systems for 'Green and Blue' services (organisation and management); ▪ To gain experience in order to use this expertise throughout Rijnland later (and in other water boards as well). [1]
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Water quality improvement
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Nature development / protection (fitting in with the PSAN = *Provincial Agrarian Nature Management Subsidy* scheme / SNL: A*grarian Nature and Landscape Management Subsidy*)
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	WFD PSAN and SNL
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	The pilot scheme is a stand-alone: pilot study into green and blue services, (various) measures. Parties with direct interests: Rijnland: purpose = chemical and ecological water quality ANV (*Agricultural Nature Association: Agrarische Natuurvereniging*) Wijk en Wouden & VAN (Agricultural Nature management Association: *Vereniging*

			Agrarisch Natuurbeheer) Ade: use of measures, field checks other parties involved: Veelzijdig Boerenland, Watermaatwerk and CLM Research and Advice BV

7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Rijnland regional water board : €146,000 Contribution by the Province of Zuid-Holland : €55,000 Contribution by the Ministry of Transport, Public Works and Water Management : €23,760 ▪ budget: €224,770 (budget) for services :€66,000
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	**Measures that have been actually used within the project** ▪ Environmentally friendly dredging (dredging jets): 37 km. ▪ Widened manure-free zone ▪ Modified ditch maintenance (regional water board regulations - "Keur" - may be changed)
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	▪ Compensation based on the Green and Blue Services catalogue ▪ total budget for services: €66,000: €33,000 for each aspect, ▪ 2-year scheme
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	HH Rijnland
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Ten farmers in the Oostbroekpolder and the Blauwe Polder
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Use a dredging jet; Nature-friendly cleaning; Widened manure-free zone.
11c		What is the amount for the scheme? With what frequency is it paid out?	Nature-friendly dredging: €30/km ditch Widened manure-free zone: €1200/ha/year
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	Two-year pilot, with extension option

12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing scheme, but now closed. No new participants
12b		If it already exists, to what extent is the scheme being taken up?	10 farmers
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	Direct potential is zero (pilot now closed). Scaling-up options were proposed at the end of 2010. Rijnland will look to see if scaling up (to the entire management area) is possible: this involves 12,000 ha of peat meadowland
12d		What is the starting date of the scheme?	2008
12e		What is the (intended) end date of the scheme?	2010 (2013)
12f		What will happen when the scheme is finished?	An evaluation was made in 2010, looking into the possibilities of scaling it up. The aim of the evaluation is to provide recommendations about setting up a scheme for widely usable green and blue services.
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	No
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	N/A
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	
X			
14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	
14c		What costs are there for the party offering the scheme?	Administration and controls
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land.	

		(Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	
18b		What are the risks of the scheme?	
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
18e		What learning points were there in the process and which key moments were crucial for the progress?	
19a	**Success factors**	What do those involved see as success factors for the scheme?	
19b		Has the scheme been tuned to suit the target group?	
19c		Did the process by which the scheme was developed contribute to its success?	
19d		Do the benefits outweigh the costs?	
	Sources	[1] Anonymous, 2008. *Rijnland en agrariërs naar maatwerk* (Rijnland and farmers working towards tailored solutions), project plan. interview by telephone: Nicolaas van Everdingen (project manager, Watermaatwerk) http://www.clm.nl/actueel/181108.html http://www.rijnland.net/wat_doet_rijnland/water_natuur_en/water_natuur_en/met_maatwerk_naar http://www.rijnland.net/actueel/persberichten?ActItmIdt=109829 http://www.nieuweoogst.nu/news_article/details/387-blauwe_diensten_in_blauwe_polder	

Success factors and positive experiences

The moment that the scheme came about was a key point. The dyke warden was positive about a pilot combining a study into measures on the one hand, and applying the advice of NAJK (*Nederlands Agrarisch Jongeren Kontakt*: Dutch Agrarian Youth Contact) for an area-based 'warm welcome' system for services and farmers on the other.

The scheme was drawn up together with farmers and the ANV. Farmers are contacted directly as far as possible, in order to get the best possible picture of their experiences.

Another positive aspect is the increasing commitment of farmers as a result of:

- The agricultural nature management course (which they liked very much and which had a 'bonding' effect), seeing the effects of measures, e.g. that flushing ditches with sulphate-rich water (from the Rhine) causes a reduction in or disappearance of water soldiers (*Stratiotes aloides*) and therefore of the green dragonfly and the black tern.
- Bio-tests for ditches performed by farmers (monitoring quality themselves)
- Ideal Ditch contest;

Talks on site - 'around the kitchen table' - are positive too. It is important to know what aspects will be dealt with. "You're not there to solve all the problems with the water board." However, you can make an inventory of your problems and collect information (e.g. water level management or the construction of cycle paths). The presence of a civil servant out in the field is also seen as a positive; the problems can then be discussed, which makes things clearer for both sides.

Failure factors

Not all the intended measures were applied. The construction of fish-friendly culverts and fish ponds has not been used within this concept. Rijnland couples these measures to dredging the main ditches, which is more efficient. As another area had higher priority for dredging, this was not included in the scheme. However, the farmers did spot opportunities here.
Findings related to measures:

- Widened manure-free zones are relatively expensive at €1,200/ha and they do not always work. Gullies for instance result in rapid runoff and emissions into surface waters.
- Ditch maintenance: can be settled without payment through the water board regulations;
- Dredging jets: Additional costs are reimbursed (but getting increasingly common; ongoing discussion about whether this is still over and above the legal requirement).

no.	Indicators	Fact Sheet 9	Green and Blue Services (nature restoration services) / Central Delfland Green Fund
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	*Groenfonds Midden Delfland* (Central Delfland Green Fund) (linked to *Proeftuin Midden Delfland* - experimental lab garden)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Central Delfland Reconstruction Area (including the Groeneveldse Polder)
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	*Purpose of the Green Fund: retention and reinforcement of the agricultural landscape and strengthening of the relationship between urban and rural areas through education and recreation* ▪ nature and biodiversity (such as protection of meadowland birds and rare domestic animal breeds) ▪ retention of landscape elements (such as pollarded trees, coppice woods and pools) ▪ cultural-historical elements (e.g. farms and outbuildings such as churning rooms and haystacks, as well as pump windmills) Purpose of the Central Delfland Experimental Garden: water storage function (230,000 m3)
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	landscape quality nature development water services are not sufficiently represented (or not at all)
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Water storage (Central Delfland Experimental Garden)
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	Water storage: NBW (Ditch Water Board Bank: *Nederlandse Waterschapsbank*) and WB21 (Water Storage 21) (EC state support is restrictive)
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	The Green Fund is an umbrella organisation. Parties involved in the Green Fund: ▪ Municipality of Midden Delfland ▪ Natuurlijk Platteland West ▪ Agrarische Natuurvereniging Vockestaert (a Green Fund working group) ▪ WLTO ('Green Delfland' Department) ▪ Paul Terwan onderzoek & advies (research and consultancy) Delfland regional water board (through the Central Delfland Experimental Garden)

7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Province of Zuid-Holland Netherlands Architecture Fund (cultural history) (expected to be 9 to 12 million euros)
X			

8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	**Administration and Organisation**
			Made up of 3 modules (boxes) of measures (see also enclosures):
			▪ General terms and conditions of participation;
			▪ Seven interrelated measures (basic landscape contribution);
			▪ Forty measures related to nature, landscape, cultural history and access; all to be remunerated separately. Of which: six measures are related to nature / biodiversity and twelve are related to landscape maintenance, including;
			  ▪ Reed
			  ▪ Terraced slopes
			  ▪ NVO (Nature-Friendly Banks)
			  ▪ pools
			The points system only comprises measures related to periodic maintenance and management and is intended for long-term remuneration of such measures. One-off investments are not part of this system, but are presented separately and proposals for financing are submitted.
			
			Setup
			▪ One-off investments
			▪ Construction, restoration and/or resolving maintenance backlogs for natural, landscape and cultural historical elements (with compensation based on 'nature business plans')

9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Points system for green Administration & Organisation services, associated with financial compensation.
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	*Stichting Groenfonds Midden Delfland* (Central Delfland Green Fund Foundation)
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Farmers in Central Delfland

11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Setup (one-off); thereafter only administration and organisation measures
11c		What is the amount for the scheme? With what frequency is it paid out?	Some are one-off payments, some are annual payments.
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	existing scheme (since 2006) but now closed
12b		If it already exists, to what extent is the scheme being taken up?	There were 76 participants in 2007 In relation to water management: ▪ reed: 1 ha (6 participants) ▪ NVO: 8 km with 10 participants (6 of whom were fencing it off too: 2,500m) ▪ Terraced slopes: 1 participant, 300m ▪ Pools: 4x (3x >75m^2, 1x <75m^2)
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	There is no budget anymore until 2012. New contracts will be signed then. A lot more farmers are interested, but scaling up is only possible if financing is available.
12d		What is the starting date of the scheme?	2006 (approval by EC)
12e		What is the (intended) end date of the scheme?	The A&O scheme ends in 2012.
12f		What will happen when the scheme is finished?	New contracts will be drawn up.
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	

13c		Have potential beneficiaries been made aware of the scheme? How was that done?	
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	
X			
14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	
14c		What costs are there for the party offering the scheme?	
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	

16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	
18b		What are the risks of the scheme?	
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
18e		What learning points were there in the process and which key moments were crucial for the progress?	
19a	**Success factors**	What do those involved see as success factors for the scheme?	
19b		Has the scheme been tuned to suit the target group?	
19c		Did the process by which the scheme was developed contribute to its success?	
19d		Do the benefits outweigh the costs?	
	Sources		http://www.middendelfland.nl/ Terwan P. & B. Rodenburg (2004). *Een puntensysteem voor groene diensten in Midden Delfland* (A points system for green services in Central Delfland). Vockestaert and WLTO-Delflands Groen Woorst I. (ed.), 2007. *Voor een open en groen Midden Delfland* (For an open and green Central Delfland). Central Delfland Green Fund Foundation

Success and failure factors

The first initiative was based on the purchase of land for various green, cultural-historical and blue functions. The ANV (the local agrarian nature association) and LTO (*Agricultural and Horticultural Organisation Netherlands*) were against it and proposed an alternative based on paid services. A scheme was proposed by a working group made up of the ANV, LTO and experts.

An important key moment was when the points system was created and the municipal administration agreed to it: the initiative for the land purchases was cancelled. A second key moment was the state support test; the scheme was delayed and had to be altered (and not in favour of the farmers' interests).

There were informational meetings in 2006, which were organised by ANV and LTO (among other parties) together with farmers. These meetings were followed by consultations with interested parties and by the creation of 'nature business plans'. After an inventory of existing elements was produced (including 8 km of nature-friendly banks), six-year contracts were drawn up in 2006 for the management and maintenance of these elements (the Green Fund is not intended for set-up activities).

In Central Delfland, the Delfland regional water board plus the Central Delfland Experimental Garden investigated what the possibilities were for (green and) blue services. After 3 years, the future of this scheme is now uncertain. In any event, the lack of clarity (there was a scheme and then there wasn't, we ran out of money, etc.) did not generate much support for it among farmers. The Delfland Water Board believes that the pilot was relatively expensive and that too much was paid. Their opinion is based on the Green and Blue Services catalogue. This is not the case according to the ANV: the example scheme included in the catalogue (long straight waterways with long uninterrupted banks) cannot be applied directly in Central Delfland (where the ditches transverse to the dykes are short).

The contracts will terminate in 2012 and new contracts will be signed. A lot of farmers are interested and other farmers want to join in too, but the question is whether there is any budget and how much. Additional funds are required.

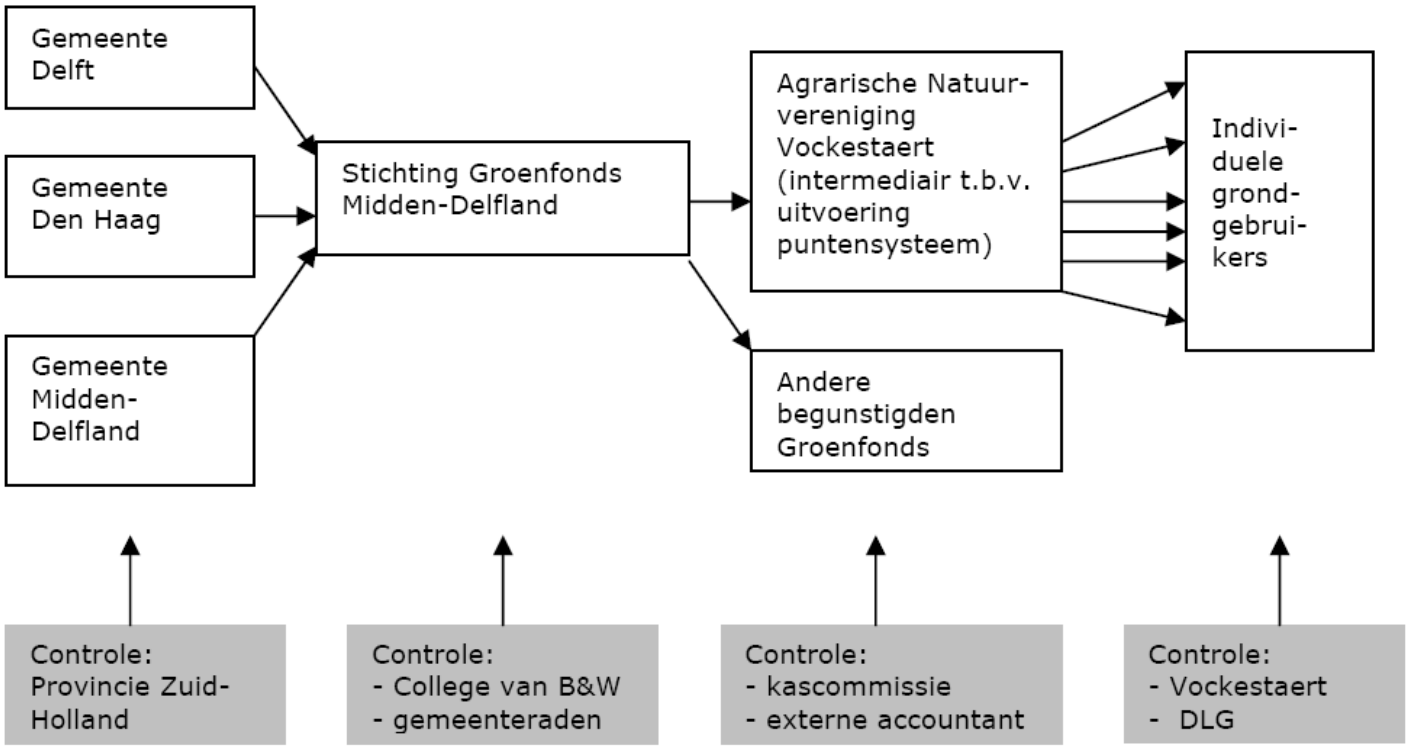
Enclosures:

- Summary of points system
- Financial flows

Tabel 1. Puntensysteem groene diensten Midden-Delfland. Elke punt levert € 10,- op.

maatregel	punten per jaar	eenheid
Box 1: onbetaalde maatregelen (basisvoorwaarden)	geen	
1. Lidmaatschap agrarische natuurvereniging		
2. In bezit van bedrijfsnatuurplan		
3. Representatief bedrijf / opgeruimd erf		
4. Deelname aan weidevogelbescherming		
Box 2: basis-landschapspremie (vast aantal punten voor hele box)	15*	per ha voor toepassen alle maatregelen in box
1. Instandhouden kavelpatroon		
2. Instandhouden sloot- en greppelpatronen		
3. Instandhouden bestaande landschapselementen		
4. Instandhouden van historische gebouwen		
5. Instandhouden grasland, afzien van grondbewerking		
6. Alleen pleksgewijze chemische onkruidbestrijding in grasland		
7. Weidegang (rund)vee		
Box 3: maatregelen die afzonderlijk punten opleveren		
Natuur / biodiversiteit		
1. Beweiding met zeldzame huisdierrassen		
– runderen	10	dier
– schapen	2	dier
2. Gedogen van ganzen en andere wintergasten	15	ha opvang
3. Gedogen van overzomerende ganzen	25	ha opvang
4. Gebruik van een wildredder bij het maaien	0,5	ha maailand
5. Toepassen van uitgekiende mozaïekplanning graslandgebruik:		
– planvorming en administratie	44	bedrijf
– hectarepremie	3,5	ha maailand
▪ of: bij maaien in loonwerk	5	ha maailand
▪ of: bij afvoer gras in loonwerk	22	maaitrap
6. Instandhouden oud grasland (>10 jaar)	6	ha
Landschapselementen		
7. Onderhoud van geriefhoutbosjes (afzetten eens per 10 jaar)	375**	ha
8. Onderhoud van houtsingels (afzetten eens per 10 jaar)	375	ha
9. Onderhoud van elzensingels (afzetten eens per 10 jaar)	8	100 m
10. Onderhoud van hagen en heggen (snoei eens per 4-6 jaar)	4	100 m
11. Onderhoud van knotbomen (afzetten eens per 3 jaar)	0,5	boom
12. Onderhoud van leibomen		
– stamdiameter < 10 cm	2,5	boom
– stamdiameter > 10 cm	5	boom
13. Onderhoud van hoogstamfruit:		
– jaarlijkse snoei	1,5	boom
– inboeten	6,5	boom
14. Onderhoud van erfbeplanting	op begroting	
15. Onderhoud van rietkragen / rietlanden:		
– oppervlakte tot 1.000 m^2	204	ha
– oppervlakte 1.000 – 2.500 m^2	156	ha
– oppervlakte > 2.500 m^2	108	ha
16. Onderhoud natuurlijke oevers:		ha
– jaarlijks beheer	204	ha
– afrastering	5	100 m
17. Onderhoud van terrastaluds:		
– jaarlijks beheer	204	ha
– afrastering	5	100 m
18. Onderhoud van poelen:		
– diameter tot 75 m^2	5	poel
– diameter 75 – 175 m2	8	poel

OVERZICHT GELDSTROMEN GROENFONDS MIDDEN-DELFLAND



no.	Indicators	Fact Sheet 10	*Langs de Linge* (Along the Linge)
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	*Langs de Linge* Implementation Programme (P80 / FS10)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	The part of Gelderland along the *Beneden Linge* (Lower Linge River): - from Geldermalsen to Gorinchem east of the Diefdijk and the Zuiderlingedijk
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	Improving spatial quality by combining functions
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	WFD (Water Framework Directive) water quality objectives: good ecological and chemical water condition
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Climate resilience Sustainable living environment Extension of the NEN (National Ecological Network - *EHS: Ecologische Hoofdstructuur*)
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	WFD (Water Framework Directive - *KRW: kaderrichtlijn water*) + ILG (*Investeringsbudget Landelijk Gebied:* subsidies for layout of rural land) funding
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	The scheme is part of the WFD. Parties involved: - Rivierenland Water Board - Municipality of Geldermalsen - LTO-Noord (*Agricultural and Horticultural Organisation, Northern Netherlands*) - Province of Gelderland
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Government subsidy of 4.1 million euros (WFD funding) This money applies to the period 2007-2015, but the water board believes it can achieve the goals agreed upon with the Ministry of Transport, Public Works and Water Management by 2013.
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	1) Field margins/hedgerows (nature-friendly banks / wet buffer zones) 2) Optimisation of business operations (fodder management, handling manure in a different way) through 'tailored advice' from the consultancy agency PBA
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Incentive scheme with compensation, in line with the market, for loss of income.
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	LTO-Noord (initiator); Rivierenland Water Board (initiator); Province of Gelderland (co-financer)

11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	1) Field margins: mainly dairy farmers 2) Optimisation of business operations: dairy cattle farmers + arable farmers
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	a 4m strip will not be fertilised / sprayed
11c		What is the amount for the scheme? With what frequency is it paid out?	1) A copy of *Actief Randenbeheer Brabant* (Active Border Management in Brabant): €0.35 per running metre per year on grassland €0.70 per running metre per year on farmland 2) Discount based on an hourly rate calculated by the consultancy agency (per half day)
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	-
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing: from 2009 to 2015 with an emphasis on the measures for the watercourses
12b		If it already exists, to what extent is the scheme being taken up?	Currently 1 farmer: started with hedgerows/field borders
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	Planned: 18,000 euros from 2011 to 2013 for the two measures (field margins and 'tailored advice').
12d		What is the starting date of the scheme?	2009
12e		What is the (intended) end date of the scheme?	2015 (expected: 2013
12f		What will happen when the scheme is finished?	This depends on the performance of the water board; hopefully 100%, because that would be as agreed with the Ministry of Transport, Public Works and Water Management (WFD objectives)
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	No
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	No; the communication (and the communication process) must be improved first → recruitment actions needed!
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	Interest among farmers was measured; after that, farmers were called by LTO and an area group comprising 6 farmers was set up.
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	Farmers always say there is 'too much red tape', but the same farmers often also have underlying reasons (e.g. problems with compliance in the past): farmers want to see first and then believe.
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	Support from the municipality because of recreation: herbs in the fields create a nice effect
X			

14a	**Beneficiaries' costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	No
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	Field margins = space, sowing herbs/flowers = loss of income (but this is what the subsidies are intended for)
14c		What costs are there for the party offering the scheme?	Investment costs through GBS
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	The study looking at the motivation for *Actief Randenbeheer Brabant* showed the following: - Improvement of water quality and image - Arable farmers can drive around with fewer problems
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land (paying in one go instead of 5 times is cheaper, because of the transaction costs) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	The maintenance of ditches has become easier now that farmers can drive across grass strips, which reduces the compensation for damaged crops: this is something both the farmers and the water board benefit from
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	*Agrarisch Natuurbeheer* (Agricultural Nature Management) through the provincial organisation, but the content of these packages is slightly different; accumulation of subsidies by farmers is not possible either
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	Yes: compensation in line with the market
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	Financial: preconceptions about costs/benefits Substantive: mainly the fear of weed pressure Substantive: time and effort (sowing and mowing and removing grass and cleaning ditches) Communication process: recruitment process (area group very positive, but keeping going and now scaling up is a difficult point)
18b		What are the risks of the scheme?	The scheme costs the water board a lot of money; it cannot be kept up for very many years.
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	No
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	Long-term lease contracts in order to keep the measure going would be preferable
18e		What learning points were there in the process and which key moments were crucial for the progress?	An area group made up of 6 farmers was involved for a number of months to find out which measures would generate the most support; this has resulted in the creation of the hedgerows/field margins and the 'tailored advice'. The consultancy agency PBA and the experiences of *Actief Randenbeheer Brabant* were involved in it too. After the measures had been selected, a meeting was organised for farmers, but it was poorly attended. A lot of attention should therefore be paid to the communication process towards the farmers, with the help of the area group.

19a	**Success factors**	What do those involved see as success factors for the scheme?	- Benefits for the farmers and the water board (see 15a and 15b) - A good communication process for the area group that was set up - The measures did result in improvement of the water quality and biodiversity
19b		Has the scheme been tuned to suit the target group?	Yes, see 18e
19c		Did the process by which the scheme was developed contribute to its success?	Yes, see 18e Close consultations with farmers at a very early stage made clear what the most practical measures were for farmers (e.g. the width of the field margins); working out what the possibilities were first, together with the farmers, made it possible to select the best measures
19d		What plans are there for the future of the scheme?	- An area meeting with farmers will be organised very shortly - Setting up a sounding board group made up of farmers, to evaluate recruitment actions - Discussions and cooperation via the hedgerow/field border arrangements in the east of Gelderland and Brabant, and an agreement with the province - Making a major effort on hedgerows from 2011 onwards, together with LTO
	Sources		* the Rivierenland website – http://www.waterschaprivierenland.nl/algemene_onderdelen/uitgebreid_zoeken/@103335/pagina/ * Ton Dorst – Rivierenland Water Board – area developer (+31-344-649217) * Tom van der Putten – Rivierenland Water Board – initiator of the local area group (via +31-344-649090)

Success factors

Involvement of farmers early in the process (the communications in particular)

Setting up the *Langs de Linge* scheme was started in close consultation with a local area group of six farmers who were the most keen on working to improve the water quality. In order to get the measures to fit in nicely with the target group, the measures that would get the most support among the farmers were sought out (together with the local area group); this produced the two measures in question - field margins and 'tailored advice'.

Cooperation with other parties

The consultancy agency PBA and the experiences of *Actief Randenbeheer Brabant* were involved in the communication process too. Cooperation with other parties made it possible to share experiences and contacts, and the investment costs could be shared among both the various parties involved and the province.

Improving the backing and support among farmers

Close consultations with farmers at a very early stage made clear what the most practical measures were for farmers (e.g. the width of the field margins). Working out what the possibilities were first, together with the local area group, made it possible to select the best (most practical) measures. These measures can be included in the normal business operations and have benefits both for the farmer and the water board. This can improve the level of backing among farmers for the taking up the scheme. In addition, the measures do result in improvements in the water quality and biodiversity.

Failure factors

Getting backing and support from farmers

Farmers often cite 'too much red tape' as the reason for not taking part in the scheme, but in fact these farmers often have other underlying reasons that result in the scheme not catching on, e.g. problems with compliance in the past. Further investigations into farmers' 'real' reasons may help bridge this gap. In addition, it seems that the farmers would like to see it before they will believe in it. The farmers do seem to fear the pressure of weeds that this may create, and they think that maintaining the field verges costs a lot of time and effort. In addition, field margins and hedgerows take up space, which results in a loss of income, although that is exactly what the remunerations are intended to cover.

Scaling up the measures

After selecting the measures with the help of the local area group, a meeting was organised for farmers; however, attendance was very poor. Currently there is 1 farmer (from the local area group) who has started with the field margins. This low utilisation of the scheme is ascribed to insufficient attention being paid to the recruitment aspect of the process and scaling up the measures to a larger group of farmers.

Feasibility of the financial remuneration

The farmers seem to have preconceived ideas about the costs and benefits of the measure (the time and effort versus the level of remuneration). In addition, the scheme is costing the water board a lot of money, too much for it to be kept up for many years, and so the future of the scheme is uncertain.

Statements

"We measured how keen the farmers were and this led to a local are group of six farmers; the two 'best' measures came from there." (Ton Dorst)

"Farmers will often say that they think it's all too much red tape, but in fact there's often some other underlying story." (Tom van Putten)

no.	Indicators	Fact Sheet 11	Limiting Erosion in Zuid-Limburg
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	*Erosiebeperking Zuid*-Limburg - Limiting Erosion in Zuid-Limburg (P100 / FS11)
2	**Location / area**	What is the location or area within which the scheme is being implemented?	The southern Limburg hills
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	To encourage sustainable land use
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Prevention of soil erosion after rainfall
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	- Sustainable agriculture - Combating water problems/flooding
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	The new erosion decree by the Arable Farming Marketing Board
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	Part of cross-compliance Province of Limburg *Limburgse Land- en Tuinbouwbond* (LLTB - Limburg Agricultural and Horticultural Association) Roer and Overmaas Water Board Purpose: to expand the utilisation of non-inversion tillage further, plus mulching
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Province, with a financial contribution by the water board: A maximum of 4 million euros for communication and implementation through to 2013 (1.5 million from the province, 2.5 million from the water board)
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	non-inversion tillage + mulch
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Incentive scheme
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Roer and Overmaas Water Board (initiator) together with the province and the LLTB

11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Landowner, lessee, tenant
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	To apply non-inversion tillage including ground-covering plants (mulch)
11c		What is the amount for the scheme? With what frequency is it paid out?	50 to 94 euros per hectare, depending on the slope. Annual payment
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	Annual agreements
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing
12b		If it already exists, to what extent is the scheme being taken up?	??
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	??
12d		What is the starting date of the scheme?	January 2009
12e		What is the (intended) end date of the scheme?	transitional period through to 2012; the erosion decree will then be evaluated using the study results and experience gained. If necessary, it will then be modified.
12f		What will happen when the scheme is finished?	Non-inversion tillage + mulch will be the guiding principle from 2013 onwards.
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	No
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	No
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	Through pilots and group meetings.
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	Yes - limiting erosion
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	It was difficult in the beginning (a lot of resistance), because non-inversion tillage has a major impact on the operations; there was more backing later on because it does indeed reduce the levels of erosion
X			

14a	**Beneficiaries' costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	Yes, particularly in terms of time and effort
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	Yes; machinery may have to be purchased (or parts of machines)
14c		What costs are there for the party offering the scheme?	Investment in advice/consultancy (communication) and implementation
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	Limiting erosion means better crop yields
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land (paying in one go instead of 5 times is cheaper, because of the transaction costs) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	Limiting erosion
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	No
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	Cost-benefit analysis and yields = acceptable
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	Those who lag behind at the start often never catch up with the early adopters (who started with the pilots); communication between these farmers is often no longer achievable
18b		What are the risks of the scheme?	- Good professional skills are need for implementing non-inversion tillage - Consistent with the EU framework post-2013
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	no
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	A bit problematic, but it is now often possible because a lot of farmers are using non-inversion tillage nowadays
18e		What learning points were there in the process and which key moments were crucial for the progress?	- Look at the requirements of farmers - Every farmer has different requirements; make the most of that fact - Individual guidance and consultancy - Get farmers to visit the pilots - Group meetings and lectures have a motivational effect

19a	**Success factors**	What do those involved see as success factors for the scheme?	- Individual consultancy process (= tailored advice) initiated by the water board - Circles of experts and research guidance group (RGG) - A hotline for farmers' problems
19b		Has the scheme been tuned to suit the target group?	The scheme encourages farmers to reduce erosion
19c		Did the process by which the scheme was developed contribute to its success?	- Communication process, including consultancy - Farmers are seen as individuals and tailored advice is therefore needed
19d		What plans are there for the future of the scheme?	Non-inversion tillage + mulch will be the guiding principle from 2013 onwards
	Sources		* Website including newsletters http://www.overmaas.nl/erosiebestrijding/informatie_nkg * Stefan Muijtjens – advisor on non-inversion tillage (+31-6-22185308)

The Province of Limburg, the LLTB and the Roer and Overmaas Water Board are aiming to further expand the use of non-inversion tillage + mulching.

Success factors
- Look at the requirements of farmers
- The communication process, including consultancy: every farmer needs something different, and that fact can be used
- Individual guidance and consultancy: farmers are seen as individuals and tailored advice is therefore needed
- Getting farmers to visit pilots and group meetings and lectures have a motivational effect
- Individual consultancy process (= tailored advice) initiated by the water board
- Circles of experts and research guidance group (RGG)
- A hotline for farmers' problems (a one-stop shop)

Failure factors
- People who lag behind at the start often never catch up with the early adopters (who started with the pilots); communication between these farmers is often no longer achievable
- Good professional skills are need for implementing non-inversion tillage (expertise!)
- Consistent with the EU framework post-2013

no.	Indicators	Fact Sheet 12	Subsidy Scheme for Nature-friendly Banks in Rijnland
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area. Each name must be unique.	Regulation on Subsidies for Nature-friendly Banks (NVO), 2009.
2	**Location / area**	What is the location or area within which the scheme is being implemented?	HH Rijnland (Rijnland Regional Water Board)
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	Encouraging people to construct nature-friendly banks type type A: shallow slope with no defences type B: shallow slope with limited defences type C: shallow slope with defences
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Water quality & ecology
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	Water storage / retention
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	WFD (Water Framework Directive - *KRW: kaderrichtlijn water*) Water management plan
6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	HH Rijnland
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	HH Rijnland Budget: approx. €300,000 per year (maximum: €800,000 per year) ▪ The budget for 2010 will be spent by June 2010. Cut-backs may mean that the budget will be lower in 201.
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	NVO type A: shallow slope with no defences NVO type B: shallow slope with limited defences NVO type C: shallow slope with defences The width of the strips depends on the type of water and width of the watercourse.

<table>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Type of water/watercourse</th><th>Minimum NVO width (zone with a shallow slope)</th><th>Slope gradient (max.)</th></tr>
<tr><td>up to 5m</td><td>20 cm</td><td>1 in 3</td></tr>
<tr><td>5-10m</td><td>60 cm</td><td>1 in 3</td></tr>
<tr><td>>10m /lakes and ponds</td><td>100 cm</td><td>1 in 3</td></tr>
<tr><td>navigation canals without shores</td><td>200 cm</td><td>1 in 4</td></tr>
<tr><td>navigation canals with shores</td><td>150 cm</td><td>1 in 3</td></tr>
</table>
</td></tr>
<tr><td>9</td><td>Instrument</td><td>What type of economic instrument is used for the scheme? And what is the compensation?</td><td>One-off compensation based on layout

existing waterways:
NVO type A: €100 per running metre;
NVO type B: €200 per running metre;
NVO type C: €400 per running metre;

▪ private individuals: subsidy is 100% of the actual costs
▪ Higher subsidies than the set maximum amounts may be allowed for the construction and/or layout of different types of banks.
▪ The maximum contribution per project/applicant is €50,000.

new watercourses:
▪ 100% of the actual costs with a maximum of €50 per running metre
▪ The maximum contribution per applicant/project is €20,000</td></tr>
<tr><td>10</td><td>Scheme providers</td><td>Who offers the scheme?
The party offering the scheme is the one that is responsible in practice for implementing it.</td><td>Rijnland</td></tr>
<tr><td>11a</td><td>Beneficiary of the instrument</td><td>Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?</td><td>Private individuals, as well as nature management organisations and authorities</td></tr>
<tr><td>11b</td><td></td><td>What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?</td><td>Laying out and ensuring maintenance of nature-friendly banks</td></tr>
<tr><td>11c</td><td></td><td>What is the amount for the scheme? With what frequency is it paid out?</td><td>See 9 for amounts
Payment frequency: one-off amount for the construction</td></tr>
</table>

11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	Not applicable: one-off measure for the construction
12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing scheme
12b		If it already exists, to what extent is the scheme being taken up?	Small-scale - and the budget was spent in 2010.
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	Potential depends on: level of interest (unknown?) funding: this is determined annually (budget for 2010 is spent, situation for 2011 uncertain because of cut-backs)
12d		What is the starting date of the scheme?	2009
12e		What is the (intended) end date of the scheme?	2016
12f		What will happen when the scheme is finished?	Unknown
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	Yes, after 2008
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	M&M (Management and Maintenance) is being considered, but this is something for the distant future
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	Evaluation of the 2007-2008 scheme showed that beneficiaries were not sufficiently aware of the scheme
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	Among authorities and private individuals in particular; farmers were hardly interested (if at all)
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	Contractors can spot the market opportunities it creates for permits for improvements to the banks for private individuals.
X			
14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	Yes, for authorities (%); M&M is a task for the beneficiaries, who were already responsible for maintenance and must provide more intensively nature-friendly maintenance
14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	No, but maintenance demands more effort (so in that sense it does result in additional costs)
14c		What costs are there for the party offering the scheme?	Costs for the construction and layout. Rijnland is also responsible for the underwater slope.

15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	NVO compensation
15b	**Benefits for the party that is offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	▪ NVO construction (but this is extremely fragmented as the scale is too small) ▪ public image
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	
18b		What are the risks of the scheme?	
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
18[e]		What learning points were there in the process and which key moments were crucial for the progress?	
19a	**Success factors**	What do those involved see as success factors for the scheme?	
19b		Has the scheme been tuned to suit the target group?	
19c		Did the process by which the scheme was developed contribute to its success?	
19d		Do the benefits outweigh the costs?	

	Sources	Telephone: Luciënne Vuister Anonymous. *Verordening subsidies natuurvriendelijke oevers* (Regulation on Subsidies for Nature-friendly Banks) 2009 + explanation and appendices.	

The first scheme dates from 2007-2008 and was open for a total of 21 months. It was evaluated, which showed that there had been 14 applications, 12 of which were granted, which resulted in 3.5 km of banks. The average compensation was €80/m, ranging between €5 and €300 per metre, depending on the local situation and the type of bank. Farmers made little or no use of the scheme. The bulk of the applicants were private individuals and authorities. The costs were approx. €270,000. The scheme focused exclusively on the construction + layout of nature-friendly banks. Owners are obliged to do the M&M for their banks. The scheme then requires nature-friendly maintenance after subsidised construction, although this requirement turns out to be difficult to enforce. The 5km/year goal has not been met.

The new scheme dates from 2009. A few things in it have been changed. The budget for 2010 has been spent. The expectation is that considerable lengths of bank/shoreline will have been constructed (rough estimate: 7km in 2009 and 2010). However, cut-backs are playing a role too, meaning that less money is available. The scheme runs for 4 to 6 years (until 2013-2015), and financial resources will be supplemented each year.

Success and failure factors

- There was hardly any communication with potential users of the scheme. The communication plan also stated that contact would be made with farmers' interest groups (LTO and ANV), but this was not done = a missed opportunity.
- The application process turned out to be very complicated, which created a barrier for applicants and more work for those granting the permits and assessing the application (e.g. submission of a profile drawing).
- Contractors are using the scheme (which is positive for scaling up, but negative if they benefit from it at the expense of HH Rijnland)
- Uptake is very limited and very fragmented; it is contributing to the public image and the support for scaling up, but hardly at all to (area) goals, if at all.
- There are no regulations for M&M remuneration. Rijnland is still thinking about having management and maintenance of NVOs remunerated by third parties.

Finally: The bank restoration scheme has been left out, although it is interesting to report that the revenues from boat licence levies are being used directly for the restoration of the banks along waterways, in particular revetments.

no.	Indicators	Fact Sheet 13	Water-retaining Banks Incentive Scheme - Rivierenland
X			
1	**Scheme name**	Name referring to the scheme, instrument, measures and/or area.	Water-retaining Banks Incentive Scheme 2010
2	**Location / area**	What is the location or area within which the scheme is being implemented?	Rivierenland Water Board
3	**Purpose of the scheme**	Encouragement of ▪ Technical measures ▪ Changes to landowners' land/water management to improve the quality of (water-related) ecosystem services.	Water storage/retention in banks/shores (40,000m^2 in 2012 and public image/activities of the water board) ▪ minimum length 100m ▪ 2-10m wide ▪ terraced or with a 1 in 5 gradient ▪ A and B watercourses ▪ In rural areas ▪ No other subsidy ▪ Approved action plan (by Rivierenland) ▪ Construction, depreciation of the ground and compensation for legal costs
X			
4a	**'Management problem' / ecosystem service**	To which (water-related) ecosystem services does the scheme make its **primary** positive contribution?	Water quantity Water quality Nature
4b		To which **other** (water-related) ecosystem services does the scheme make a positive contribution?	
5	**Underlying policy, legislation and regulations**	Which policies or legislation/regulations cover the scheme?	Water storage (WB21, NAAW = National Administrative Agreement on Water/*NBW: Nationaal Bestuursakkoord Water*), WFD (Water Framework Directive), NEN (National Ecological Network/*EHS: Ecologische Hoofdstructuur*) (wet ECZ=Ecological Connection Zone), vision on catchment areas (bottleneck locations for water storage), WMP (Water Management Plan/*WBP: Waterbeheerplan*)

6	**Process**	Is the scheme stand-alone or is it part of a larger project (focused on an area)? (This is important to know, in case more is paid for areas within NEN zones than outside them.) Which parties were involved in the process of creating the scheme? And with what objective in mind were those parties brought in?	The scheme is linked to the "green and blue" (nature restoration) services of the Province of Gelderland. Gelderland also subsidises the banks/shores and will subsidise the fisheries measures in future too (spawning grounds, deeper pits for winter)
7	**Source of finance**	What source of finance was used to pay for the scheme? And what is the maximum budget?	Rivierenland + Province of Gelderland
X			
8	**Measure**	Is the scheme intended to encourage the implementation of any measures? If so, which?	Water-retaining banks (choice of various profiles) and - in future - fisheries measures (spawning grounds and winter dormancy sites)
9	**Instrument**	What type of economic instrument is used for the scheme? And what is the compensation?	Financial compensation for the construction, depreciation (as a result of change in designated land function) and compensation of legal charges. No compensation for M&M (management and maintenance).
10	**Scheme providers**	Who offers the scheme? The party offering the scheme is the one that is responsible in practice for implementing it.	Rivierenland
11a	**Beneficiary of the instrument**	Who are the intended beneficiaries of the scheme's economic instrument (i.e. those using or implementing it)?	Private individuals and legal entities (no authorities)
11b		What activity does a (potential) beneficiary of the instrument undertake to do in the scheme?	Construction of water-retaining banks/shores
11c		What is the amount for the scheme? With what frequency is it paid out?	€2/m^2 if outside bottleneck location, ECZ or WFD body of water; €4/m^2 if inside depreciation of ground (max. €6/m^2: 85% of the value inside bottleneck locations, 50% outside). One-off payment
11d		For how long does the scheme apply for the beneficiary of the instrument? What options are there for leaving it?	Definitive, as a result of the change in the designated land function from agricultural to a water-related function (change in the dossier)

12a	**Status of the scheme**	Is it an existing scheme or a proposal?	Existing scheme (successor to the Water-retaining Banks Incentive Scheme 2008)
12b		If it already exists, to what extent is the scheme being taken up?	There are approx. 5-10 new participants on an annual basis (this number was smaller initially). It therefore seems that an increasing number of farmers are interested: this is also due to the fact that they are getting used to the idea and that they are following other farmers
12c		What is the potential for the scheme? How many potential beneficiaries / how much land area / km is there (potentially) in the area?	€259,000
12d		What is the starting date of the scheme?	1 March 2010
12e		What is the (intended) end date of the scheme?	31 December 2011
12f		What will happen when the scheme is finished?	Further development, probably.
X			
13a	**Feasibility and support**	Has the existing scheme been modified in the past in order to make it more effective? If so, why?	Yes - what modifications?
13b		Are there plans to modify the existing scheme in order to increase its effect? What are they?	
13c		Have potential beneficiaries been made aware of the scheme? How was that done?	
13d		Is there support for the scheme among the beneficiaries? What are the key reasons for this?	▪
13e		Is there support for the scheme, from the parties involved and from elsewhere? What are the key reasons for this?	
X			
14a	**Beneficiary's costs**	Is the measure in the scheme associated with major investments for the scheme's beneficiaries?	

14b		Are there high costs for the scheme's beneficiaries when the measure is implemented? If so, what are the main components of the costs?	
14c		What costs are there for the party offering the scheme?	
15a	**Benefits for the beneficiary**	What advantages are there for the beneficiaries of the scheme/measure (other than the compensation included in the scheme)?	
15b	**Benefits for the party offering the scheme**	▪ The water board only has to manage 1 plot of land and can therefore fulfil several objectives at once, instead of buying 5 plots of land. (Paying in one go instead of 5 times is cheaper, because of the transaction costs.) ▪ Support? ▪ Can the objectives be implemented and realised quickly?	
16	**Other schemes**	Is the beneficiary also able to make use of another scheme for implementing the measure? If so, which scheme?	
17	**Costs/benefits**	Do the benefits (including the instrument) outweigh the costs for the beneficiaries of the scheme?	
X			
18a	**Failure factors**	What do those involved see as failure factors for the scheme?	
18b		What are the risks of the scheme?	
18c		Does the scheme conflict with any other schemes? If so, which schemes does this scheme conflict with?	
18d		Agricultural land is often leased. Is the leasing of agricultural land an obstacle to the way the scheme functions? If so, why?	
18e		What learning points were there in the process and which key moments were crucial for the progress?	
19a	**Success factors**	What do those involved see as success factors for the scheme?	

19b		Has the scheme been tuned to suit the target group?	
19c		Did the process by which the scheme was developed contribute to its success?	
19d		Do the benefits outweigh the costs?	
	Sources	- written information - limited information by phone because the contact was on holiday	

The 2010 scheme is the successor to the previous scheme. People were satisfied with that scheme and it was re-implemented in March 2010 after a few slight modifications had been made. Work is under way to produce a revised version that offers possibilities for subsidies for spawning grounds and winter dormancy sites. This also fits in with the province-level nature restoration services.

Support is healthy: five to ten participants on an annual basis, and the number is increasing every year. Important aspects of this are the information on the website and the presentations at ANVs (agrarian nature associations) meetings. The scheme does allow some slight scope for tailored solutions (e.g. width of the bank 2-10m and the type of bank), but the scope for tailored solutions is clearly delimited within the scheme.

The fact that class C watercourses are not considered is seen as a bottleneck. Apart from that, the comments have mainly been positive.

Acknowledgements

CLIENT:
THE DUTCH MINISTRY OF TRANSPORT, PUBLIC WORKS AND WATER MANAGEMENT
FINAL REPORT

STATUS:

Released

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3 september 2010
C03031/BD0/0M6/000231

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