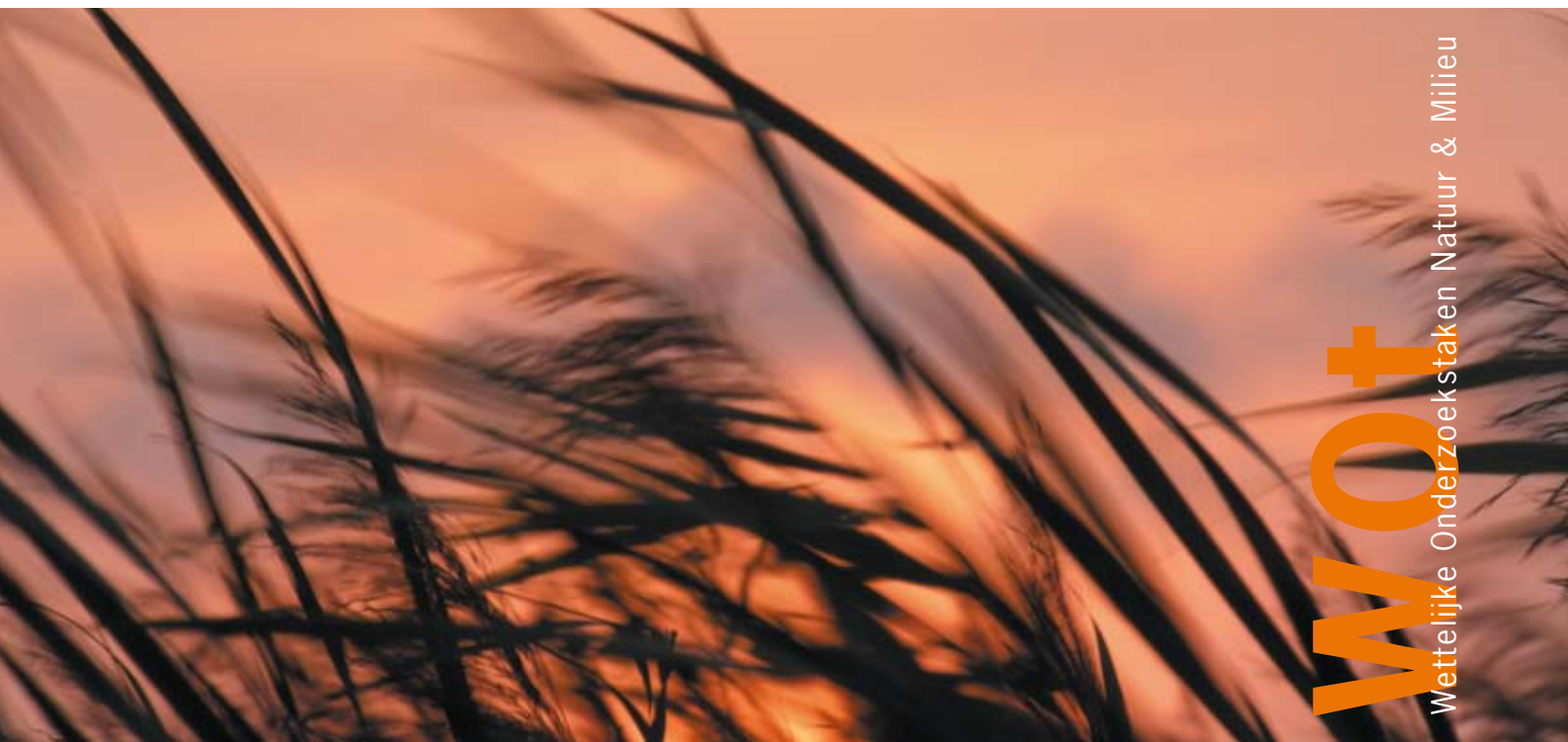


Annual reports for 2007

Programme WOT-04

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Wettelijke Onderzoekstaken Natuur & Milieu



WAGENINGENUR

For quality of life

Annual reports for 2007

Programme WOT-04

Werkdocument 106

Wettelijke Onderzoekstaken Natuur & Milieu

Wageningen, juni 2008

The 'Working Documents' series presents interim results of research commissioned by the Statutory Research Tasks Unit for Nature & the Environment (WOT Nature & Milieu) from various external agencies. The series is intended as an internal channel of communication and is not being distributed outside the WOT Unit. The content of this document is mainly intended as a reference for other researchers engaged in projects commissioned by the Unit. As soon as final research results become available, these are published through other channels. The present series includes documents reporting research findings as well as documents relating to research management issues.

This document was produced in accordance with the Quality Manual of the Statutory Research Tasks Unit for Nature & the Environment.

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The Working Documents series is published by the Statutory Research Tasks Unit for Nature & the Environment (WOT Nature & Milieu), part of Wageningen UR. This document is available from the secretary's office, and can be downloaded from www.wotnatuurenmilieu.wur.nl.

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Preface

Since 1 January 2005, the Statutory Research Tasks Unit for Nature & the Environment have been implemented in accordance with the terms and conditions agreed upon by the Ministry of Agriculture, Nature and Food Quality and Stichting DLO, as laid down in the implementation contract entitled *Uitvoeringsovereenkomst WOT Natuur & Milieu*. At the same time, the format of the annual reports was revised.

Each WOT programme is now allocated its own working document, consisting of three parts: a summary report on the programme as a whole, a description of each individual project and a summary in English. The following working documents make up the 2007 annual reports for the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M):

- No. 92: WOT-04-001 Umbrella Programme (Communication, Quality and Management)
- No. 93: WOT-04-002 Basic Research
- No. 94: WOT-04-003 Ecological & Environmental Consultancy
- No. 95: WOT-04-005 M-AVP (Monitoring system for the 'Agenda for a Living Countryside' programme)
- No. 96: WOT-04-006 Environmental Policy Assessment Task
- No. 97: WOT-04-007 Nature Policy Assessment Task

All documents mentioned above are written in Dutch. The present working document presents a summary in English of the 2007 results of the complete WOT programme **WOT-04**. The results of these projects have been applied in various products of the Netherlands Environmental Assessment Agency (MNP) and in the various working documents, reports and studies produced by WOT N&M.

In addition, annual investments in the context of the Knowledge Base Theme on Organization and Use of Green Area and Climate Change result in further knowledge development for WOT N&M. Reports on this subject are produced under the responsibility of the Knowledge Base Theme management.

A concise report on each project accounts for the way the available resources have been spent. These reports have been collected in the present document. Each project report presents administrative data on the project and a concise description of its aims and results.

Paul Hinssen
Head WOT N&M

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**1 WOT-04-001 - Umbrella Programme
(Communication, Quality and Management)**

1.1 Report on WOT-04-001 programme

Statutory Research Tasks for Nature and the Environment (WOT N&M)

Programme WOT-04-001: Umbrella Programme for WOT N&M

1. Name and No. of cluster, name of cluster manager:
WOT-04,
Statutory Research Tasks for Nature & the Environment
P.J.W.Hinssen
2. Name and No. of Programme:
WOT-04-001.
Umbrella Programme for WOT N&M
3. Name of programme coordinator and Wageningen UR department:
P.J.W.Hinssen, Alterra
4. Contact person(s) at Ministry of Agriculture, Nature and Food Quality and directorate at ministry / other persons involved and name of organisation:
Henk Groenewoud (DN)
Adiel Jahangir (DK)
5. Participating centres of expertise within and outside Wageningen UR:
Alterra
Agricultural Economics Research Institute (LEI)
6. Target groups:
Dutch parliament, ministers, policy departments at the Ministries of Agriculture, Nature and Food Quality; Housing, Spatial Planning and the Environment; Transport, Public Works and Water Management; Economic Affairs.
7. 2007 budget:

Amounts in € x 1000	Available in 2007	Spent in 2007	Transferred to 2008
Budget transferred from 2006	Not applicable		
Normal programme resources	425.0	386.7	38.3
NAP resources			
Additional project resources from Ministry of Agriculture, Nature and Food Quality			
Total from Ministry of Agriculture, Nature and Food Quality	425.0	386.7	38.3
Other (if applicable)		N.A.	N.A.

Brief comments on resources spent and transferred.

By and large, the intended projects have been implemented according to plan. The funds allocated to the Communication project for completion of reports have been transferred to 2008.

8. Policy task(s) of the Dutch Ministry of Agriculture, Nature and Food Quality to which the research findings contribute:

The Ministry of Agriculture, Nature and Food Quality and the Executive Board of Wageningen University & Research Centre confirm the Statutory Research Tasks for Nature and the Environment (WOT N&M) in a series of implementation contracts. These tasks are subdivided into programmes. Programme No. WOT-04-001 is the 'umbrella' programme. This programme involves management of the Statutory Research Tasks Unit for Nature & the Environment, quality assurance, communication and knowledge management, as laid down in the WOT statute and the WOT implementation contract. Since these tasks are relevant to each of the other programmes, they cannot be accommodated in individual programmes.

9. Knowledge-related questions that relate to the policy task(s) and are to be answered by the research findings:

The Statutory Research Tasks Unit for Nature & the Environment aims to meet the knowledge needs ensuing from the statutory tasks for which the unit carries out the research. These statutory tasks and knowledge requirements have been laid down in the implementation contracts for the Statutory Research Tasks for Nature & the Environment. The Umbrella Programme does not answer any specific knowledge needs, but facilitates research by the other WOT N&M programmes.

Under the WOT statute, quality assurance, programme management, communication efforts and assistance to project managers all have to meet special requirements. Quality assurance at the Statutory Research Tasks Unit for Nature & the Environment has been implemented since 2003 by means of an ISO-certified quality management system. The certificate for this system was renewed for another three years in 2006. This quality management system is used to structure quality improvement efforts. Synchronisation with the MNP quality handbook is underway. The secretarial service is operational. Activities outlined in the 2006 communication plan have been further implemented in 2007. Scientific underpinning of contributions by the present programme is being offered in WOT Reports, Working Documents and Studies. In addition, the Ministry of Agriculture, Nature and Food Quality and other target groups are being kept informed by means of the Kennis Online website and the WOT newsletter WOT's New.

10. Proposed and achieved results or interim results for 2007

Project	2007 products
Management of WOT unit	2008 Action Programme, 2006 Progress Reports, maintenance of strategic plan
Communication on WOT	Communication plan, WOT newsletter, website, studies, reports and working documents (only as regards production and logistics, as the content is supplied by the projects)
Quality assurance	Keeping up the WOT quality management system, management review, contributions to 2007 scientific review at Alterra
Knowledge Management	Maintenance of Strategy Chart, conversion of WOT strategic plan into an operational plan for knowledge management and implementation of operational plan.
Management of Statutory Research Tasks Unit for Nature & the Environment	Quarterly reports

Secretarial services	Ongoing service provision as laid down in WOT secretarial services documents
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Project	Activities implemented in 2007
Management of WOT unit	2006 Progress Report, 2008 Action Programme, linked to Supervisory Committee meeting.
Communication on WOT	Newsletter (6 issues), Working Documents (34), WOT Reports (18), WOT Studies (1, plus 4 in preparation), updating the website and intranet site, contributions to KennisOnline website (editorial team)
Quality assurance	Internal audit (in consultation with Alterra), internal audit (WOT, September), management review (summer of 2007), Alterra scientific review (spring of 2007, in consultation with Alterra)
Knowledge Management	Strategy Chart (spring), Operational Plan for knowledge management (draft in autumn)
Management of Statutory Research Tasks Unit for Nature & the Environment	Allocation of projects (first quarter), monitoring of and reporting on progress (January, April, July, October)
Secretarial services	Ongoing secretarial services for programme supervisors as laid down in WOT secretarial services documents

11. Knowledge transfer to target groups and utilisation of knowledge by target groups

The reported results are delivered to target groups in various ways. Working documents ensure that fellow researchers within the organisation can build on previous findings. Policy target groups outside the organisation are informed through WOT products (Nature Balance documents, Nature Outlook documents, consultancy), while the scientific community is informed through WOT Reports and the public through WOT Studies. The regular requests for reprints indicate that the WOT research findings fulfil a need. A 2006 survey among stakeholders showed that 70% of all respondents (189) were familiar with the name WOT and were using the Unit's products.

12. Collaboration between DLO research institutes involved in the programme and other institutes/organisations:

The programme involves collaboration with the Alterra research institute (90%) and the Agricultural Economics Research Institute (LEI) (10%). Collaboration with both institutes is characterised by an open atmosphere. Activities are implemented by the WOT Programme Department, which is housed at Alterra and which has an LEI employee seconded to it.

1.2 Project reports for WOT-04-001

Survey of WOT-04-001 projects

Project No.	Project name	Page
5233540-01 and LEI 20894	Communication on WOT	17
5233560-01	Management of WOT unit	19
5233578-01	Secretarial services for WOT Unit	21
5233589-01	Quality assurance	23
5233608-01	Knowledge Management	25
LEI 20832	Management of Statutory Research Tasks Unit for Nature & the Environment	27

Umbrella project on Communication for WOT N&M, 2007

Programme WOT-04-001	
Project results in 2007	
Project name	Umbrella project on Communication for WOT N&M, 2007
Project No.	5233540-01, LEI 20894
<p>Knowledge requirements of target group</p> <p>The Dutch government is in need of knowledge on nature, landscape and the environment in their administrative, economic and social contexts. The Statutory Research Tasks Unit for Nature & the Environment supplies this information in particular to the Ministry of Agriculture, Nature and Food Quality (LNV) and the Netherlands Environmental Assessment Agency (MNP). This project plays a crucial part in this process. The project is closely related to the research projects of the other WOT subprogrammes and to communication projects and activities of other WOT subprogrammes.</p>	
<p>Research objective:</p> <p>The umbrella project entitled Communication for WOT N&M focuses on internal and external communication requirements for WOT N&M insofar as this transcends individual programmes.</p>	
<p>Proposed and achieved research results and products:</p> <p>The main results are:</p> <ul style="list-style-type: none"> • In 2007, the project has resulted in clear, unambiguous communication on WOT N&M to clients and current or future staff. A major result is the enhanced image that WOT N&M has built up within as well as beyond the Wageningen UR context. • Publications: WOT's New newsletter (6 issues), WOt Studies (1), WOt Reports (2), WOt Working Documents (2), reports for the E-news service on the KennisOnline website (24). • Organisational and facilitating contributions to events like the 'Knowledge Fair', workshops and other meetings. 	

WOT N&M Management

Programme: WOT-04-001	
Project results in 2007	
Project name	WOT N&M Management
Project No.	5233560-01
Knowledge requirements of target group Effective and efficient use of resources and implementation of WOT N&M programmes	
Objective of project: Supervision and planning & control activities are required for an effective and efficient use of resources and for the implementation of WOT N&M programmes.	
Proposed and achieved research results and products: 2008 Plan of Action Annual reports for 2006 Documents for the spring and autumn management meetings between WOT and the Executive Board. Documents for the spring and autumn meetings of the Supervisory Committee. Partnership agreement between WOT and the Netherlands Environmental Assessment Agency.	

Secretarial services for WOT N&M

Programme: WOT-04-001	
Project results in 2007	
Project name	Secretarial services for WOT N&M
Project No.	5233578-01
Knowledge requirements of target group Not applicable	
Objective of project: The 'Secretarial Services' project facilitates the implementation of the Statutory Research Tasks for Nature & the Environment at the DLO research institutes.	
Proposed and achieved research results and products: The project takes the form of a process. Proposed tasks were implemented as and where required by the process.	

Quality Assurance at the Statutory Research Tasks Unit for Nature & the Environment

Programme: WOT-04-001	
Project results in 2007	
Project name	Quality Assurance at the Statutory Research Tasks Unit for Nature & the Environment
Project No.	5233589-01
Knowledge requirements of target group Not applicable	
Objective of project: The WOT statute requires the Statutory Research Tasks Unit for Nature & the Environment to operate a quality management system. The present project is intended to manage and implement this system.	
Proposed and achieved research results and products: Renewal of the ISO certificate after review (2007/2008). Favourable outcome of the 2007 scientific review of the Statutory Research Tasks Unit for Nature & the Environment and Alterra.	

Knowledge Management 2007

Programme: WOT-04-001	
Project results in 2007	
Project name	Knowledge Management 2007
Project No.	5233608-01
Knowledge requirements of target group The Statutory Research Tasks Unit for Nature & the Environment (WOT N&M) has to offer expert and reliable assistance for the statutory research tasks on nature and the environment carried out by Wageningen University & Research Centre (WUR) for the Ministry of Agriculture, Nature and Food Quality (LNV). Hence, WOT N&M aims to offer efficient and effective knowledge-related processes within the chain of knowledge transfer linking research and policymaking, especially ensuring the link between WUR and the Netherlands Environmental Assessment Agency (MNP).	
Objective of project: The project aims to improve or innovate the process of handling knowledge, in order to strengthen the role of WOT N&M as an expert and reliable partner in the implementation of statutory research tasks on nature and the environment for the Ministry of LNV.	
Proposed and achieved research results and products: Statutory Research tasks Unit for Nature & the Environment (Wot N&M) Plan of Action for 2007 'Knowledge Fair' on 22 March 2007. From basic research at Wageningen UR to MNP products; 27 posters. Wot Working Document No. 51, WOT N&M, Wageningen. Houweling, H (2008, in prep.). Improving WOT N&M knowledge management processes. (In Dutch) WOT Working Document No. xx, WOT N&M, Wageningen.	

Executive Management of Statutory Research Tasks Unit for Nature & the Environment

Programme: WOT-04-001	
Project results in 2007	
Project name	Executive Management of Statutory Research Tasks Unit for Nature & the Environment
Project No.	LEI 20832
Knowledge requirements of target group Not applicable.	
Objective of project: Supervision and planning & control activities are required for an effective and efficient use of resources and the implementation of projects at the Nature Policy Assessment Task Unit (NPB).	
Proposed and achieved research results and products: <ul style="list-style-type: none">• Planning & Control is to produce:• Annual action plan and budget estimate• Quarterly progress reports and evaluation of annual action plan.• Improvements to the quality assurance system, where necessary	

2 WOT-004-002 - Basic Research

2.1 Report on WOT-04-002 programme

Statutory Research Tasks for Nature and the Environment (WOT N&M)

Programme WOT-04-002: Basic Research for the Nature Policy Assessment Task

1. Name and No. of cluster, name of cluster manager:
WOT-04,
Statutory Research Tasks for Nature & the Environment
P.J.W. Hinssen
2. Name and No. of Programme
WOT-02-002
Basic Research for the Nature Policy Assessment Task
3. Name of programme coordinator and Wageningen UR department:
H. Houweling, Alterra
4. Contact person(s) at Ministry of Agriculture, Nature and Food Quality and directorate at ministry / other persons involved and name of organisation:
H.E. Groenewoud (LNV-DN)
K. Wieringa (MNP)
5. Participating centres of expertise within and outside Wageningen UR:
Alterra, LEI, IMARES
6. Target group(s):
The primary target group is the Dutch Ministry of Agriculture, Nature and Food Quality (Nature Department) and the Netherlands Environmental Assessment Agency (MNP); the secondary target group (via the WOT-04-006 programme) consists of the Dutch parliament, ministers, other policy departments at the Ministries of Agriculture, Nature and Food Quality; Housing, Spatial Planning and the Environment; Transport, Public Works and Water Management; and Economic Affairs.
7. 2007 budget:

Amounts in € x 1000	Available in 2007	Spent in 2007	Transferred to 2008
Budget transferred from 2006	573	530	43
Normal programme resources	2700.0	2599	101
Additional project resources from Ministry of Agriculture, Nature and Food Quality	-		
Total from Ministry of Agriculture, Nature and Food Quality	3273	3129	144
Other (if applicable)		N.A.	N.A.

Comments on resources spent and transferred

Considerable resources were transferred from the 2006 budget to the 2007 budget. The backlog had mainly been incurred in 2005. The Statutory Research Tasks Unit for Nature & the Environment (WOT N&M) has consulted with the Alterra and LEI research institutes to implement measures to reduce the backlog. These measures now appear to have the intended effect. The activities in 2005, 2006 and 2007 have used up 82%, 99% and 116%, respectively, of the normal budget allocated to the programme. The proportion of budget resources being transferred is now clearly decreasing. It is expected that the ongoing projects

which are being funded from the 2006 and 2007 budgets will be completed in the first three months of 2008, making their research findings available in time for the relevant MNP products.

Summary outline at thematic level

8. Policy task(s) of the Dutch Ministry of Agriculture, Nature and Food Quality to which the research findings contribute:

The WOT programme entitled Basic Research (WOT-04-002) is intended to develop knowledge that can be applied in the Nature Policy Assessment Task programme (WOT-04-006). The policy task for this programme is as follows:

The Nature Policy Assessment Task is a statutory instrument supporting Dutch nature policy (created under the act of 24 December 1997, regulating the creation of the Nature Policy Assessment Task). Its tasks include identifying trends and problems, evaluating policy achievements, forecasting the extent to which policy goals will be achieved and assessing social and land-use trends in terms of the opportunities and threats they present to nature. The programme produces a Nature Outlook report each year and a Nature Balance report every four years. These reports are commissioned by the Executive Board of the Ministry of Agriculture, Nature and Food Quality. In addition, the Netherlands Environmental Assessment Agency occasionally supplies exploratory studies or effect assessments for third parties, such as political parties or private nature conservation societies. To do so, it needs the Minister's permission.

9. Knowledge-related questions that relate to the policy task(s) and are to be answered by the research findings:

The programme provides answers to the approximately 40 knowledge-related questions formulated by the Netherlands Environmental Assessment Agency (MNP) in the plan of action entitled 'Research for the MNP's Nature Policy Assessment Task: themes and questions for 2007 (Programme Committee on Nature, 2006). These questions relate to four areas of knowledge, viz. Biodiversity, Landscape, Governance and Society and Economic Context of Nature and the Landscape, and fall under 10 'themes':

- 1 Administrative organisation and economic dimensions of nature and landscape policy
- 2 Policy implementation, per sector (Assessment Agency) as well as overall (area-based policy subsidy scheme SGB / National Rural Investment Budget ILG)
- 3 Landscape quality
- 4 Nature, well-being and public support
- 5 Significance of the National Ecological Network
- 6 Developments in agriculture
- 7 Water management policy
- 8 International aspects of nature conservation policy
- 9 Costs and benefits of nature
- 10 Scientific infrastructure

10. Proposed and achieved results or interim results for 2006:

All knowledge-related questions referred to in the previous section are expected to be the subject of WOT publications (WOT Working Documents, WOT Reports or WOT Studies) and/or journal articles. Complete references are included in the reports for each individual project. Many of the publications are still in preparation, as mentioned in the project reports.

11. Knowledge transfer to target group and utilisation of knowledge by target group:

The target audience for this programme consists of the project managers and project team members for the various MNP products (e.g. the Nature Balance, Nature Outlook and Thematic Assessment reports). The research questions were formulated on the basis of a survey of knowledge requirements by this target group. Knowledge transfer is distinguished as a separate stage in the WOT N&M 'knowledge cycle'. Each of the four knowledge areas in the programme is led by its own subprogramme manager, who supervises the project content and acts as the contact within MNP, which is the main stakeholder.

Knowledge transfer is effected:

- in meetings of the Programme Committee (PCN), which are attended by: the programme managing directors of WOT N&M and the Netherlands Environmental Assessment Agency/Nature Landscape & Biodiversity team (MNP/NLB), MNP product managers and programme and subprogramme managers;
- in the projects: each project has its own MNP contact person;
- through the tangible knowledge-related products (WOT Working Documents, Reports and Studies) resulting from the research projects; the final stage of the production of knowledge products is coordinated and facilitated by the WOT N&M unit.
- via direct interaction between the programme's project managers and the project managers of the MNP products. WOT N&M facilitates this direct interaction through an annual 'knowledge fair' at MNP in Bilthoven (the 2007 edition of which took place on 22 March, while the 2008 edition will take place on 3 April), at which project managers present the programme's results for the previous year to the project leaders of this year's MNP products.

12. Collaboration between DLO research institutes involved in the programme and other institutes/organisations:

MNP and Wageningen University and Research Centre (WUR) collaborate closely in this programme. MNP plays an important role in formulating questions and incorporating the resulting knowledge in MNP products. WUR, particularly the Environmental Sciences Group (ESG), Social Sciences Group (SSG) and Institute for Marine Resources & Ecosystem Studies (IMARES), produces the necessary research findings. Information transfer from MNP to WUR (about the knowledge requirements of users of the MNP products) and from WUR to MNP (answers to knowledge-related questions) is being explicitly facilitated and assisted.

2.2 Project reports for WOT-04-002

Survey of WOT-04-002 projects:

No.	Project No.	Project name	Page
Biodiversity (2005)			
2005/B8	439.61013.01	Methods to predict salt-water biodiversity Ecoprofiles of indicators	19
Economic context (2005)			
2005/E1	LEI 20400	Causes of differences in land prices	21
Administrative organisation (2006)			
2006/1.5	LEI 20678	Significance of macro-economic developments for nature and the landscape	23
Policy implementation (2006)			
2006/2.2	5232778-01	Contributions by the Area-based Policy Subsidy scheme (SGB) and the National Rural Investment Budget (ILG)	25
Nature, well-being and public support (2006)			
2006/4.3	LEI 20657	Public support for nature conservation	27
Significance of the National Ecological Network (EHS) (2006)			
2006/5.1	5232730-01	Contributions of the National Ecological Network to generic policies on nature and the landscape	29
2006/5.2	5232808-01	Agreement between biodiversity targets in the Birds and Habitat Directives, the Water Framework Directive and the Dutch National Ecological Network	31
2006/5.3	5233033-01	Conditions for and size of National Ecological Network (EHS)	33
2006/5.4	5232728-01	Goal achievement monitoring for the National Ecological Network – mapping quality classes	35
Developments in Agriculture (2006)			
2006/6.4	LEI 20652	Opportunities for participation in countryside stewardship schemes by herbivore farmers	37
2006/6.5	LEI 20648	Biodiversity and small landscape elements in organic farming	39
Water Policy (2006)			
2006/7.2	5232976-01	Basis map of wetland habitat	41
International aspects of nature policy (2006)			
2006/8.2	5232876-01	Trend changes in NW European plant species	43
Costs and benefits of nature (2006)			
2006/9.1	LEI 30829	Increasing cost-effectiveness	45
2006/9.2	LEI 20742 and LEI 5233315-01	Developing a model for cost-effectiveness of nature conservation policy	47
Research infrastructure (2006)			
2006/10.4	LEI 20755	Information network on area management by the National Forestry Service (SBB)	49
2006/10.4	LEI 20777	Linking biodiversity to operational farm management	51
2006/10.7	5231083-01	Quantifying the uncertainty in soil maps	53
2006/11.4	5233300-01	Implementing the Nature Planner system	55
Administrative organisation (2007)			
2007-1.1	5233774-01	Sustainability in area-based policy	57
2007-1.2	5233638-01	Environmental and ecological effects of the new Spatial Planning Act	59

2007-1.3	2100.8388.00	Responsive government	61
2007-1.4 / 9.5	LEI 20896	Macro-economics, optimal timing and nature policy	63
2007-1.5	5233127-01	Significance of the policy on the National Ecological Network	65
2007-1.6	5232979-01 and LEI 20716	Policy options offered by EU environmental directives	67
2007-1.7	5233170-01	Monitoring administrative efficacy	69
2007-1.8	5233839-01	Monitoring court decisions on nature conservation issues	71
Policy implementation (2007)			
2007-2.1	LEI 20934	Nature conservation and the National Rural Investment Budget (ILG II) Follow-up to working visits to provinces	73
2007-2.3	5233944-01	ILG and water table drawdown	75
2007-2.4	5233684-01	Ex-post evaluation of administrative and financial processes in countryside stewardship schemes	77
2007-2.5	LEI 20859	Nature Management Programme: learning from neighbouring countries	79
2007-2.6	LEI 20872	Economic effects of ILG on nature and the landscape	81
2007-2.7	5233945-01	Effects of the 'Environmental Permit' (WABO) on nature and the landscape	83
Landscape quality (2007)			
2007-3.1	5233484-01	Landscape monitoring system 2007	85
2007-3.2	5233489-01	Amenity value of large water bodies	87
2007-3.3	5233549-01	High-quality landscape development	89
Nature, well-being and public support (2007)			
2007-4.2	LEI 20829	LOCALI: developing a potentially successful set of government instruments for local landscape management	91
2007-4.3	LEI 20950	Societal context of sustainable consumption	93
2007-4.4	5233615-01	Economic significance of effects of wildlife on well-being	95
Significance of the National Ecological Network EHS (2007)			
2007-5.1	5233531-01	Ecological values 1990–2000	97
2007-5.2	5233511-01	Assessing whether EHS species targets are being met	99
2007-5.3	5233532-01	Survey of ecological indicators for policy purposes	101
2007-5.4	5233512-01	Conditions for the fauna target species in the National Ecological Network (EHS)	103
2007-5.5	5233515-01	Simplifying regulations	105
Developments in agriculture (2007)			
2007-6.1	LEI 20886	Linking FIONA and DRAM to calculate CAP options	107
2007-6.2	LEI 20899	Effects of agricultural changes on the landscape	109
2007-6.3	LEI 20945 and LEI 5234102-01	Management of peat lowlands	111
2007-6.4	LEI 20930	Analysis of economic efficiency and ecological	113

		efficacy of area conservation contracts	
Water Policy (2007)			
2007-7.1	4396220101	Supplying information on salt water bodies for the Water theme in the 2008 Nature Balance report	115
2007-7.3	5233864-01	Current water table situation in conservation areas	117
International aspects of nature policy (2007)			
2007-8.1	LEI 20834	Benchmarking external policy environment for nature and the landscape	119
2007-8.2	5233865-01	Benchmarking the implementation of Natura 2000 in EU countries	121
2007-8.3	5233538-01	Benchmarking landscape ambitions and management in an international context	123
2007-8.4	5231765-01	Plant dispersion module for the Nature Planner system	125
Costs and benefits of nature (2007)			
2007-9.1	LEI 31156 and LEI 5234073-01	Cost-effectiveness of target species conservation	127
2007-9.2	LEI 31110 and LEI 5233826-01	Cost-effectiveness of the National Ecological Network and relations with biodiversity and environmental conditions	129
2007-9.3	LEI 31039 and LEI 5233669-01	Cost-effectiveness of Natura 2000 sites	131
2007-9.4	LEI 20898	Instruments to manage National Landscapes: Effects on core qualities (INLEK)	133
Research infrastructure (2007)			
2007-10.4	5233803-01	Basic map of natural areas (2007 phase)	135
2007-10.6	5233525-01	Implementation of management and development plan for knowledge models on landscape (2007)	137
2007-10.7	LEI 20917	Raising FIONA to the 'A' quality status	139
2007-10.8	5232891-01	Uncertainty analysis for soil map – SMART – SUMO – MOVE chain of models	141
2007-10.9	5233962-01	Meta-version of Nature Planner system	143
2007-10.10	5233463-01	ETC-LUSI	145
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	5232455-03	Reporting on Basic Research	151
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Methods to predict salt-water biodiversity: ecoprofiles of indicators

Programme: WOT-04-002	
Project results in 2007	
Project name	Methods to predict salt-water biodiversity: ecoprofiles of indicators
Project No.	439.61013.01(2005 B8)
<i>Knowledge requirements of target group:</i> Methods to predict salt-water biodiversity.	
<i>Objective of project:</i> Developing prediction methods.	
<i>Proposed and achieved research results and products:</i> Meesters, Erik H.W.G & Remment ter Hofstede (eds) 2008. Indicator system for salt-water biodiversity. II. Ecoprofiles. (In Dutch) WOt report (in prep).	

Causes of differences in land prices

Programme: WOT-04-002

Project results in 2007

Project name	Causes of differences in land prices
Project No.	LEI 20400 (E1)

Knowledge requirements of target group:

Space is at a premium in the Netherlands, which is reflected in land prices. Various types of land use, such as housing, offices and factories, farming, horticulture, nature conservation, infrastructure, water management and recreation all compete for the limited land area that is available. Land prices are closely related to the intended land use. It is therefore important for planners to understand how changes in land use affect land prices.

Objective of project:

The project assesses how the price of a parcel of farmland is affected by its use and the use of neighbouring parcels. In other words, it assesses what factors determine the price of a parcel of farmland and tries to explain the major price differences between parcels used for the same purpose.

Proposed and achieved research results and products:

Cotteleer, G., Luijt, J., Kuhlman, J.W. & C. Gardebroek, (2007). Causes of differences in land prices. A hedonistic price analysis of the Agricultural land market. (In Dutch) WOt Report No. 41, WOT N&M, Wageningen

Cotteleer, Geerte & Jan Luijt (2007): 'My neighbour's land will come up for sale only once'. (In Dutch) De Landeigenaar, Vol. 53, No. 1, February 2007.

Cotteleer, G., Luijt, J., Kuhlman, J.W. & C. Gardebroek, (2008). Market power in a GIS-based Hedonic Price Model of Farm Land markets. Land Economics, forthcoming.

Significance of macro-economic developments for nature and the landscape

Programme: WOT-04-002	
Project results in 2007	
Project name	Significance of macro-economic developments for nature and the landscape
Project No.	LEI 20678 (2006/1.5)
Knowledge requirements of target group: How do macro-economic developments affect the achievement of quality objectives for nature and the landscape?	
Objective of project: The project aims to identify the role of macro-economic developments in nature and landscape policy.	
Proposed and achieved research results and products: <i>Woltjer, G.B. (with contributions from R.A. Jongeneel & H.L.F. de Groot) (2007). Significance of macro-economic developments for nature and the landscape. Preliminary exploration of the field. (In Dutch) WOt Report No. 50, WOT N&M, Wageningen</i>	

Contributions by the Area-based Policy Subsidy scheme (SGB) and the National Rural Investment Budget (ILG)

Programme: WOT-04-002	
Project results in 2007	
Project name	Contributions by the Area-based Policy Subsidy scheme (SGB) and the National Rural Investment Budget (ILG)
Project No.	5232778-01 (2006/2.2)

Knowledge requirements of target group:

The target group wants to know

What aspects of the National Rural investment Budget (ILG) can be characterised as 'government' and which ones as 'governance', and what does this mean for the achievement of the objectives?

The research questions were:

- How can evaluation perspectives for government and governance be expressed and how can the results be used to create an evaluative framework for ILG?
- What is the position of the ILG instrument on the resulting evaluative framework for government and governance?
- What are the consequences of the above for the achievement of objectives?

After consultations with MNP, it was decided to concentrate the research effort on water table drawdown in the context of ILG. This has resulted in revised research questions:

- How have negotiations on water table drawdown between the national and provincial authorities developed and to what extent have local parties been involved?
- How have negotiations on water table targets between provincial and regional actors developed and what does this imply for national commitments on water table drawdown (reducing soil desiccation)?
- To what extent can these two processes be characterised as 'government' or 'governance'?

Objective of project:

The project aims to develop and apply an evaluative framework to assess the comprehensive instruments with which the government tries to achieve its targets for nature. More specifically, this involves assessing the National Rural Investment Budget (ILG), especially as regards water table drawdown, and situating the process of negotiations on this topic on the continuum from government to governance.

Proposed and achieved research results and products:

Since the project is still in progress, we report proposed results:

- An evaluative instrument to assess government and governance, which can be used in later projects (= methodological result).
- An evaluation of agreement in the ILG context about water table drawdown in 3 Dutch provinces (Noord-Holland, Drenthe and Noord-Brabant), indicating what aspects can be classified as government and governance.

Public support for nature conservation

Programme: WOT-04-002	
Project results in 2007	
Project name	Public support for nature conservation
Project No.	LEI 20657 (2006/4.3)
<i>Knowledge requirements of target group:</i> How much public support is there for nature conservation in the Netherlands? Updating and operationalising the theoretical concept; collecting and analysing data on the basis of representative survey studies among the Dutch population.	
<i>Objective of project:</i> Every five years, the Netherlands Environmental Assessment Agency (MNP) organises a survey to assess the current public support for nature conservation and to identify trends in this respect.	
<i>Proposed and achieved research results and products:</i> <i>Bakker, H.C.M. de, C.S.A. van Koppen & J. Vader (2007).</i> The public's 'green sense': public support for nature and nature policy. (In Dutch) WOt Report No. 47.	

Contributions of the National Ecological Network to generic policies on nature and the landscape

Programme: WOT-04-002	
Project results in 2007	
Project name	Contributions of the National Ecological Network to generic policies on nature and the landscape
Project No.	5232730-01 (2006/5.1)
<p><i>Knowledge requirements of target group:</i> Politicians ask for justification of the National Ecological Network (EHS) and the investments for this project. Ideally, this question of justification should not be addressed solely from the perspective of biodiversity, but also from that of the benefits of the EHS for society. This project examines the significance of the EHS in meeting objectives other than those of biodiversity.</p>	
<p><i>Objective of project:</i> The study assesses the significance of the National Ecological Network (EHS) for various societal purposes, from three different perspectives: (1) national policy plans, (2) existing core qualities (general, national perspective) and (3) possible tensions resulting from simultaneous achievement of ecological and societal objectives (local perspective). The latest research topic is a case study of the Diemberbos, a wooded area in an urban setting, which is included in the EHS and also faces high recreational pressure. National research topics 1 and 2 focus on core qualities that are relevant to recreation, landscape perception and identity.</p>	
<p><i>Proposed and achieved research results and products:</i> Langers, F. & J. Vreke, 2008. The significance of the National Ecological network for societal purposes (In Dutch). WOT Report (in prep.)</p>	

Agreement between biodiversity targets in the Birds and Habitat Directives, the Water Framework Directive and the Dutch National Ecological Network

Programme: WOT-04-002	
Project results in 2007	
Project name	Agreement between biodiversity targets in the Birds and Habitat Directives, the Water Framework Directive and the Dutch National Ecological Network.
Project No.	5232808-01 (2006/5.2)
<i>Knowledge requirements of target group:</i> Examining the ecological ambitions of some European countries as regards the EU's Birds and Habitat Directives and Water Framework Directive.	
<i>Objective of project:</i> The project aims to compare the ecological ambitions and objectives in the Netherlands with those in some of the neighbouring countries, in terms of coordination between the Birds and Habitat Directives and the Water Framework Directive.	
<i>Proposed and achieved research results and products:</i> <i>Apeldoorn, R.C. van</i> , Working with biodiversity goals in European directives. A comparison of the implementation of the Birds and Habitats Directives and the Water Framework Directive in the Netherlands, Belgium, France and Germany, WOt Working Document No. 77.	

Conditions for and size of the National Ecological Network

Programme: WOT-04-002	
Project results in 2007	
Project name	Conditions for and size of the National Ecological Network
Project No.	5233033-01 (2006/5.3)
<i>Knowledge requirements of target group:</i>	
<p>There is considerable need for a system to monitor the results of efforts invested in the Dutch National Ecological Network (EHS). The project team has been asked to develop an indicator that can assess environmental, water and spatial conditions, individually as well as collectively, and that ties in with the existing EHS goal achievement monitor.</p>	
<i>Objective of project:</i>	
<p>The project aims to operationalise a monitoring system for environmental and spatial conditions, covering all terrestrial 'nature target types' (i.e. combinations of plant and animal species preferred for a particular area) and tying in with the existing EHS goal achievement monitor. The results will take the form of maps and statistics that can be used as a baseline assessment for the Monitoring & Evaluation System for the 'Agenda for a Living Countryside' (ME-AVP) and the National Spatial Strategy, as well as to evaluate the 'Nature Management Programme' (<i>Programma Beheer</i>).</p>	
<i>Proposed and achieved research results and products:</i>	
<p>Reijnen, M.J.S.M., A. van Hinsberg, H. Kuipers, S. Hennekens & R. Pouwels. Spatial, water and environmental conditions for the Dutch National Ecological Network to achieve sustainable conservation of biodiversity. WOT report No. xx, WOT N&M Wageningen.</p> <p>The report is expected to be completed in 2008. The report will also include results as regards spatial conditions for target fauna species under present environmental and water conditions (project No. 5233512-01, completed in 2007) and those regarding spatial conditions for flora target species under present environmental and water conditions (project No. 5235024-01, to be completed in the summer of 2008).</p>	

Goal achievement monitoring for the National Ecological Network – mapping quality classes

Programme: WOT-04-002	
Project results in 2007	
Project name	Goal achievement monitoring for the National Ecological Network – mapping quality classes
Project No.	5232728-01 (2006/5.4)
<p><i>Knowledge requirements of target group:</i> There is considerable need for a system to monitor the results of efforts invested in the Dutch National Ecological Network (in terms of land acquisition, management, quality and planning protection). The question is whether available data would allow an indicator to be developed that could show to what extent particular 'nature target types' (i.e. combinations of plant and animal species preferred for a particular area) have been achieved at local level.</p>	
<p><i>Objective of project:</i> The project aims to operationalise a goal achievement monitoring system for the National Ecological Network, covering all terrestrial 'nature target types', resulting in a map of quality classes for these target types that can be used as a baseline assessment for the Monitoring and Evaluation system for the 'Agenda for a Living Countryside' (ME-AVP) programme and the National Spatial Strategy, as well as to evaluate the 'Nature Management Programme' (<i>Programma Beheer</i>).</p>	
<p><i>Proposed and achieved research results and products:</i> Reijnen, M.J.S.M , J. Clement, M. van Esbroek, A. van Hinsberg & H. Kuipers (in prep.) Achieving the goals of the Dutch National Ecological Network 2000-2004. Quality of terrestrial nature target types. (In Dutch) WOT Report No. xx, WOT N&M. Wageningen.</p>	

Opportunities for participation in countryside stewardship schemes by herbivore farmers

Programme: WOT-04-002	
Project results in 2007	
Project name	Opportunities for participation in countryside stewardship schemes by herbivore farmers
Project No.	LEI 20652 (2006/6.4)
Knowledge requirements of target group: Opportunities for farms to fit countryside stewardship activities (under the government's SN and SAN schemes for nature conservation by farmers and other landowners) into their operational farm management, and to implement management measures for large organisations managing wildlife areas.	
Objective of project: Assessing the feasibility of current targets.	
Proposed and achieved research results and products: Schrijver, R.A.M. & D.P. Rudrum (2008). <i>Opportunities for participation in countryside stewardship schemes by herbivore farms. (In Dutch)</i> WOT report xx, WOT N&M Wageningen.	

Biodiversity and small landscape elements in organic farming

Programme: WOT-04-002	
Project results in 2007	
Project name	Biodiversity and small landscape elements in organic farming
Project No.	LEI 20648 (2006/6.5)
<i>Knowledge requirements of target group:</i> A literature study on the effects of organic farming methods (compared to conventional farming) on biodiversity and small landscape elements, and conversely, the effects of biodiversity and small landscape elements on organic farming.	
<i>Objective of project:</i> The project aims to produce an up-to-date literature review of the relations between organic farming, biodiversity and small landscape elements.	
<i>Proposed and achieved research results and products:</i> <i>Smits, M.J.W. & F.A.N. van Alebeek, (2007). Biodiversity and small landscape elements in organic farming: a literature review. (In Dutch). WOt Report No. 39, WOT N&M, Wageningen.</i>	

Basic Map of Wetland Habitats

Programme: WOT-04-002	
Project results in 2007	
Project name	Basis map of wetland habitat
Project No.	5232976-01 (2006/7.2)
<i>Knowledge requirements of target group:</i> 1. There is a need for a map of aquatic habitats in the Netherlands and the requirements of these habitats in terms of the water system. 2. There is a need for a map of the current state of the water system, in terms corresponding to those for the ecological requirements map.	
<i>Objective of project:</i> The project aims to compose a map of aquatic habitats in the Netherlands, showing their ecological requirements as regards the water systems, as well as a map showing the current state of these water systems. These maps should allow nature conservation policies and water management policies to be coordinated and problem areas to be identified.	
<i>Proposed and achieved research results and products:</i> Didderen, K. , P.F.M Verdonshot & M. Bleeker. A basic map of Dutch wetlands. (In Dutch) Part 1: Policy maps and prototype. WOT Working Document No. 70, WOT N&M Wageningen.	

Trend changes in NW European plant species

Programme: WOT-04-002	
Project results in 2007	
Project name	Trend changes in NW European plant species
Project No.	5232876-01 (2006/8.2)
<p>Knowledge requirements of target group: Developing indicators for the sensitivity of various plants species to habitat fragmentation and climate change by analysing large digital databases, and linking these indicators to changes (trends) in their occurrence and distribution characteristics.</p>	
<p>Objective of project: Topics like 'climate change' and 'habitat fragmentation' are currently attracting great interest, and the project aims to examine the possible effects of these two trends and their interaction on the distribution of plants.</p>	
<p>Proposed and achieved research results and products: <i>Ozinga, W.A., M. Bakkenes & J.H.J. Schaminée (2007).</i> Sensitivity of Dutch vascular plants to climate change and habitat fragmentation; a preliminary assessment based on plant traits in relation to past trends and future projections, WOt Report No. 49, WOT N&M, Wageningen</p> <p>Staaïj, Pauline van der, Wim Ozinga, Marleen Pierik & Joop Schaminée (2008, in press). The influence of recent climate changes on Dutch ecosystems. (In Dutch) Natura.</p> <p>Results will also be published in the form of a chapter (to be written by Pauline van der Staaïj & Wim Ozinga) in the book <i>Grenzen in beweging</i>, eds. J.H.J. Schaminée & E.J. Weeda, which is to be published by KNNV Uitgeverij in 2008.</p>	

Increasing cost-effectiveness

Programme: WOT-04-002	
Project results in 2007	
Project name	Increasing cost-effectiveness
Project No.	LEI 30829 (2006/9.1)
<i>Knowledge requirements of target group:</i> Dutch policymakers in various policy areas, including nature conservation policy, are becoming increasingly interested in the cost-effectiveness of current policies. In this context, cost-effectiveness means the degree to which policies manage to maximise results at a given cost level, or to achieve particular results at minimum cost.	
<i>Objective of project:</i> The project aims to develop a model that the Netherlands Environmental Assessment Agency can use in its cost-effectiveness analyses of existing and future nature conservation policies and current environmental policies.	
<i>Proposed and achieved research results and products:</i> De Koeijer et al. Cost-effectiveness of the terrestrial part of the Dutch National Ecological Network: a preliminary exploration of possible applications (provisional title). (In Dutch) WOt Report No xx, WOT N&M, Wageningen.	

Developing a model for a cost-effective nature conservation policy

Programme: WOT-04-002	
Project results in 2007	
Project name	Developing a model for a cost-effective nature conservation policy
Project No.	LEI 20742 / 5233315-01 (2006/9.2)
<p><i>Knowledge requirements of target group:</i> Knowledge-related question: What areas need to be conserved to achieve cost-effective habitat management, with effectiveness being measured as the number of protected species?</p> <p>Research question: What model structure should be used to maximise species richness, taking into account aspects like species composition, environmental quality, spatial coherence and 'nature target type' (i.e. the combination of plant and animal species preferred for a particular area)?</p>	
<p><i>Objective of project:</i> The project aims to produce a GAMS (General Algebraic Modelling System) model to calculate which nature areas need conserving within a particular geographic area to protect as many species as possible at a given budget.</p>	
<p><i>Proposed and achieved research results and products:</i> Groeneveld, R.A. en D. Rudrum, Habitat allocation to maximise biodiversity, WOt Working Document No. xx, WOT N&M, Wageningen</p>	

Information network on area management by the National Forestry Service (SBB)

Programme: WOT-04-002	
Project results in 2007	
Project name	Information network on area management by the National Forestry Service (SBB)
Project No.	LEI 20755 (2006/10.4)
<i>Knowledge requirements of target group:</i> Regular information on the costs of managing forests and wildlife areas in the Netherlands.	
<i>Objective of project:</i> Accessing and analysing the administrative data kept by the Dutch National Forestry Service (SBB), in order to regularly derive data on relevant management costs (and revenues) for the purpose of the information network on area management.	
<i>Proposed and achieved research results and products:</i> The SBB administrative system has proved to be highly detailed and complex, including budget holders at a wide range of levels. In addition, SBB has collaborated with the Natuurmonumenten conservation society and some of the Provinciale Landschappen conservation societies in 2007 to revise the structure of its administrative system (in the project entitled Doelentaal). As a result, the revised SBB administrative data have to be reanalysed to ensure their inclusion in the Information network on Area Management in 2008. The report is expected to be completed in 2008.	

Linking biodiversity to operational farm management

Programme: WOT-04-002

Project results in 2007

Project name	Linking biodiversity to operational farm management
Project No.	LEI 20777 (2006/10.4)

Knowledge requirements of target group:

There is a lack of information on the degree to which the structure and operation of farms determines the cost-effectiveness of countryside stewardship (on-farm nature management) schemes. This knowledge gap can be filled by specific data collection efforts. The project shows the benefits of linking data on farm structure and operation to ecological data, based on an approach involving a database with farm and biodiversity data.

Objective of project:

The project aims to improve data collection methods to assess the relation between farm operational management and the ecological state of a farm.

Proposed and achieved research results and products:

Leneman, H., M.-J. Smits & H. Wijsman, 2007. Biodiversity and farm management: opportunities and problems in creating linkages to the Information Network. (In Dutch) WOT Working Document No. xx, WOT N&M Wageningen.

Transparency of policies: cost-effectiveness of countryside stewardship by farmers. (In Dutch) Marie-José Smits, Hans Wijsman & Hans Leneman
Poster presented at LEI workshop on social issues, 12 July 2007

Quantifying the uncertainty in soil maps

Programme: WOT-04-002	
Project results in 2007	
Project name	Quantifying the uncertainty in soil maps
Project No.	5231083-01 (2006/10.7)
<i>Knowledge requirements of target group:</i> There is a need for information on the degree of uncertainty in soil maps, as these maps are used in many studies by the Netherlands Environmental Assessment Agency (MNP) to supply the input for process models such as the SMART regional acidification model. In these situations, the uncertainty in the soil maps affects the level of uncertainty in the results produced by the model.	
<i>Objective of project:</i> The project aims to describe and apply methods to simulate maps of quantitative and categorical soil characteristics. It applies these methods to the data and information available in the Dutch soil information system BIS.	
<i>Proposed and achieved research results and products:</i> Brus, D.J., P. Bogaert, & G.B.M. Heuvelink. Bayesian Maximum Entropy prediction of soil categories using a traditional soil map as soft information. Published on line by European Journal of Soil Science (doi: 10.1111/j.1365-2389.2007.00981.x) D.J. Brus & G.B.M. Heuvelink. Towards a soil information system with quantified uncertainty. Three approaches for stochastic simulation of soil maps'. WOT Report No. xx, WOT N&M Wageningen.	

Implementing the Nature Planner system

Programme: WOT-04-002	
Project results in 2007	
Project name	Implementing the Nature Planner system
Project No.	5233300-01(2006/11.4)
<p><i>Knowledge requirements of target group:</i> The Netherlands Environmental Assessment Agency (MNP) is using the Nature Planner (NP) system to answer local or national policy questions. Nature Planner 3.0 consists of a chain of models like SMART2/SUMO2, LARCH, MOVE and BIODIV. These instruments operate within the ArisFlow dataflow management system. The main research question is: In view of the available computational capacity, is it possible to use the Nature Planner to implement an uncertainty analysis for the 'soil map-SMART2/SUMO2-MOVE' chain of models in ArisFlow?</p>	
<p><i>Objective of project:</i></p> <ol style="list-style-type: none"> 1. Implementing the NP-ArisFlow chain at Alterra to secure a more efficient collaboration between MNP and Alterra. 2. Examining the feasibility of using the NP in ArisFlow in the uncertainty analysis of the 'soil map-SMART2/SUMO2-MOVE' chain of models. 	
<p><i>Proposed and achieved research results and products:</i> The Nature Planner system has not yet been fully implemented at Alterra. This implementation is being severely hampered by incomplete documentation and the resignation of the project manager. The memorandum discussing the advantages and disadvantages of using the NP in ArisFlow in the uncertainty analysis for the 'soil map-SMART2/SUMO2-MOVE' chain of models has not yet been published. The memorandum will be included as an appendix in the report on the 2007/10.8 project, which is a Wot Working Document with the provisional title: Wamelink et. al. (2008). Error propagation in the 'soil map-SMART2/SUMO2/MOVE' chain of models. (In Dutch) WOT Working Document xx, WOT N&M Wageningen.</p>	

Sustainability in area-based policy

Programme: WOT-04-002	
Project results in 2007	
Project name	Sustainability in area-based policy
Project No.	5233774-01 (2007/1.1)
<p><i>Knowledge requirements of target group:</i></p> <p>The objectives of the project have been specified in four research questions:</p> <ol style="list-style-type: none"> 1. How do processes of variation and selection regarding water-related problems work out at regional level, and what major selections have been made? 2. How can the occurrence of selection moments and the nature of the actual selections be explained from the dimensions of local policy arrangements and political and social developments? 3. How can the actual selections that have been made be evaluated in terms of coherence ? <ul style="list-style-type: none"> • To what extent have all relevant links been made (<i>widening the scope</i>)? • To what extent are the capitals (or elements of the capitals), present and future effects and local and distant effects been interrelated? 4. What institutional factors determine successes and failures in creating coherence in the process analysed? 	
<p><i>Objective of project:</i></p> <p>MNP is trying to improve the relevance and value of its products and recommendations for policymakers. It has, however, no clear idea of the way sustainability is incorporated in specific policy processes. It is also assumed that there are tensions between multi-actor negotiating processes at local and regional levels and the conservation of collective qualities like climate, land and nature (MNP, 2006). The project therefore examines the views of relevant policymakers and stakeholders about sustainability issues, the aspects of sustainability that emerge in the negotiations and the way these aspects are actually implemented. Finally, MNP wants to know how policy developments and policy rules at higher levels affect the specification of sustainability at regional level.</p> <p>Research into sustainability in area-based policy should help make MNP products and recommendations fit in better with policymakers' requirements. The practice of policymaking is heterogeneous and is increasingly characterised by negotiations between large numbers of stakeholders (public, private and civil society parties) and administrative levels (from global to local). If the research is to contribute to the objective of the project, it should first of all examine the decision-making processes around water-related problems at regional level, in interaction with the institutional context. Secondly, it should examine the extent to which these processes result in sustainability.</p>	
<p><i>Proposed and achieved research results and products:</i></p> <p>Padt, F. & F.G. Boonstra (in prep.). <i>Title not yet known</i>. WOT Report.</p> <p>Internal presentation to be held at MNP in Bilthoven.</p>	

Environmental and ecological effects of the new Spatial Planning Act

Programme: WOT-04-002	
Project results in 2007	
Project name	Environmental and ecological effects of the new Spatial Planning Act
Project No.	5233638-01 (2007/1.2)
<p><i>Knowledge requirements of target group:</i> The project focuses on the following question: <i>What prospects does the new Spatial Planning Act offer for the environment, nature conservation, the landscape, green spaces and water bodies?</i></p> <p>This overall research question has been specified into the following sub-questions:</p> <ol style="list-style-type: none"> 1. What instruments does the new Spatial Planning Act provide? 2. What opportunities does the new Spatial Planning Act offer to achieve the policy goals formulated in the National Spatial Strategy policy memorandum, as regards the protection and development of the environment, nature conservation, the landscape, green spaces and water bodies? 3. Are the provincial authorities willing to actually use the instruments provided by the new Spatial Planning Act? 4. Can these instruments be integrated with other instruments (in terms of complementary instruments and complementary policymaking; potential differences in policymaking cultures) 	
<p><i>Objective of project:</i> The main objective of the present project is to start explorative research into the prospects offered by the new Spatial Planning Act as regards the environment, nature conservation, the landscape, green spaces and water bodies.</p> <p>The objectives can be subdivided into the following goals:</p> <ol style="list-style-type: none"> 1. identifying the instruments offered by the new Spatial Planning Act; 2. exploring the opportunities offered by the new Spatial Planning Act to meet policy goals as regards the environment, nature conservation, the landscape, green spaces and water bodies; 3. exploring the extent to which provincial authorities are willing to use the new instruments offered by the Spatial Planning Act in their policymaking on the environment, nature conservation, the landscape, green spaces and water bodies; 4. identifying the place of the efforts to use new Spatial Planning Act among other legal, financial and communicative instruments that might be used to help meet policy goals. 	
<p><i>Proposed and achieved research results and products:</i> Kamphorst, D.A., M. Pleijte, F.H. Kistenkas & P.H. Kersten, (2007) The new Dutch Spatial Planning Act: A new policymaking culture? Prospects offered by the new Spatial Planning Act for the environment, nature conservation, the landscape, green spaces and water bodies. (In Dutch) WOT Report No. xx, WOT N&M, Wageningen.</p>	

Responsive government

Programme: WOT-04-002	
Project results in 2007	
Project name	Responsive government
Project No.	2100.8388.00 and 2100.8388.01 (2007/1.3)
<i>Knowledge requirements of target group:</i> The main research question is: <i>How, why, when and on what conditions do policy themes relating to nature and the environment emerge on the political and social agenda?</i>	
This has been specified into the following sub-questions:	
<ul style="list-style-type: none">• What topics have appeared on the political and social agenda during the 1996-2006 period?• Is there a difference between the Dutch media and parliament in terms of their interest in environmental and nature conservation issues? If so, why are some problems given priority over others?• What specific actors (e.g. centres of expertise) dominate the political and social agenda-setting process as regards the policy themes of nature conservation and the environment? How can this be explained?• What institutional factors (e.g. rules, influences, institutional places of contact ('venues') structure the process of political and social agenda setting as regards nature conservation and the environment (in terms of friction as well as flexibility)?• Are there connections between economic and physical changes on the one hand and the interest in policy problems among the media and politicians on the other? How can these be explained?• What specific combinations of actors, institutional and physical factors (patterns) can 'explain' the process of political and social agenda setting regarding the policy themes of nature conservation and the environment?	
<i>Objective of project:</i> The objective of the present research project is to examine how the interest in issues of nature conservation and the environment among the public and politicians arises and what consequences this has for policymaking priorities. The reason for starting this study was the often unpredictable course of the process of social and political agenda setting.	
<i>Proposed and achieved research results and products:</i> Breeman, G en A. Timmermans (2008), Responsive authorities: A study of social dynamics, political agenda setting and priorities in Dutch environmental policy. (In Dutch)	

Macro-economics, optimal timing and nature conservation policy

Programme: WOT-04-002

Project results in 2007

Project name	Macro-economics, optimal timing and nature conservation policy
Project No.	LEI 20896 (2007/1.4 and 2007/9.5)

Knowledge requirements of target group:

The core concepts among the knowledge requirements are optimal timing and irreversibility. The project will focus on developing and applying an evaluation instrument (social cost-benefit analysis) that takes account of these issues.

Objective of project:

The projects aims, firstly, to analyse the relation between economic climate, growth, land markets and the implementation of the Dutch National Ecological Network (EHS) by land acquisition and, secondly, to identify the role of irreversible processes in ecology and nature conservation and to examine ways of successfully incorporating this in a social cost-benefit analysis. In addition, the project will study the role of 'path dependency' in the process of making spatial planning decisions (focusing on industrial estates).

Proposed and achieved research results and products:

A WOT Report is to appear in 2008. No provisional title as yet.

Significance of government policies on the National Ecological Network

Programme: WOT-04-002	
Project results in 2007	
Project name	Significance of government policies on the National Ecological Network
Project No.	5233127-01 (2007/1.5)
<p><i>Knowledge requirements of target group:</i> The project tries to meet the need at the Netherlands Environmental Assessment Agency (MNP) for knowledge about substantive and organisational developments in the government's policies on the Dutch National Ecological Network (EHS) since 1990, the mechanisms underlying these developments and the lessons to be learned from them for the future Dutch nature conservation policy.</p>	
<p><i>Objective of project:</i> The project aims to:</p> <ul style="list-style-type: none"> • describe and explain discursive developments in policies on the National Ecological Network since 1990; • describe and explain the developments with regard to the nature and organisation of three examples of area-based implementation of the EHS policy; • assess the administrative capacity of these three examples of policy implementation; • formulate elements of a future coordination model for Dutch EHS policy. 	
<p><i>Proposed and achieved research results and products:</i> Boer, S. de, W. Kuindersma, M. van der Zouwen & J. van Tatenhove (2008), Significance of the policy on the National Ecological Network. Discursive dynamics in EHS policy since 1990 and the administrative efficacy of area-based policy implementations. (In Dutch) WOT Study No. x, WOT N&M, Wageningen.</p>	

Policy space in EU environmental directives

Programme: WOT-04-002	
Project results in 2007	
Project name	Policy space in EU environmental directives
Project No.	5232979-01 / LEI 20716 (2007/1.6)
<i>Knowledge requirements of target group:</i> The central question in this project is to what extent and in what ways the Netherlands, England and North Rhine-Westphalia seek and utilise policy space in their negotiations with the European Commission and other EU Member States regarding the implementation of the Nitrate Directive, the Birds and Habitat Directives and the Water Framework Directive.	
<i>Objective of project:</i> The objective of the study is to learn from the process of implementing three European environmental directives in three EU member states (the Netherlands, England and North Rhine Westphalia). Lessons can only be learned by examining the course of these implementation processes and finding explanations for the way they have developed.	
<i>Proposed and achieved research results and products:</i> The proposed result is a WOt Report: Boer, S. de, M. van der Zouwen, F. Kistenkas, M.-J. Bogaardt & I. Neven (2008), Policy space utilised? A comparative analysis of the implementation processes of the Birds and Habitat Directives, the Water Framework Directive and the Nitrate Directive in the Netherlands, England and North Rhine-Westphalia. (In Dutch) WOT Report No. xx, WOT N&M, Wageningen.	

Monitoring administrative efficacy

Programme: WOT-04-002	
Project results in 2007	
Project name	Monitoring administrative efficacy
Project No.	5233170-01 (2007/1.7)
<i>Knowledge requirements of target group:</i> A key research topic at the Netherlands Environmental Assessment Agency (MNP) is the success or failure of policies on nature and the landscape, and the roles of politicians and policymakers in this respect. This makes it important to monitor administrative power.	
<i>Objective of project:</i> The project aims to produce a working paper linking administrative efficacy and policy arrangements, and confronting administrative efficacy with the requirements imposed by monitoring. The confrontation is used to evaluate problems and opportunities. If possible, some potential indicators to monitor administrative efficacy will be assessed in terms of - the extent to which the indicator actually shows ('measures') what its users think or want it to show; - the observability of the indicator scores in the practical implementation of policies.	
<i>Proposed and achieved research results and products:</i> Vreke J., Evaluation of nature policy processes. WOT Working Document No. 76, WOT N&M Wageningen.	

Monitoring court decisions on nature conservation issues

Programme: WOT-04-002	
Project results in 2007	
Project name	Monitoring court decisions on nature conservation issues
Project No.	5233839-01 (2007/1.8)
Knowledge requirements of target group: Analysis and categorisation of court decisions on nature conservation issues.	
Objective of project: No systematic surveys are currently being kept in the Netherlands of court decisions on the Dutch National Ecological Network and the Bird and Habitat Directives (Natura 2000 and protection of rare species). The project aims to create a long-term overview of developments in this part of nature conservation law by collecting decisions made by the highest Dutch court, the Council of State.	
Proposed and achieved research results and products: <i>Kistenkas, F.H. & W. Kuindersma</i> Monitoring court decisions on nature conservation issues 2005-2007; Trends in court decisions on Natura 2000 and the National Ecological Network. (In Dutch) WOT Working Document No. 82. WOT N&M, Wageningen.	

Nature conservation and the National Rural Investment Budget (ILG II) Follow-up to working visits to provinces

Programme: WOT-04-002	
Project results in 2007	
Project name	Nature conservation and the National Rural Investment Budget (ILG II) Follow-up to working visits to provinces
Project No.	LEI 20934 (2007/2.1)
<p><i>Knowledge requirements of target group:</i> The main questions are the following. Is there a strong interaction between nature conservation policy and the many area-based processes? If so, how does this work out in practice? Do the many area-based operational processes stimulate or endanger nature conservation? Or are they perhaps hardly relevant?</p>	
<p><i>Objective of project:</i> This is a follow-up study to a project examining the significance of the National Rural Investment Budget (ILG) for the implementation of nature conservation policy at provincial level. The project involved a 'quick scan' study in preparation for the Nature Balance report. However, the project mainly concentrated on ILG processes from the perspective of the provincial authorities. It did not address the actors at levels below that of the provinces, that is, the many people, organisations and networks that will become involved once the ILG starts to gather pace. The present project aims to examine how nature conservation policy and area-based processes interact, the significance for nature conservation of the new developments in rural areas, including new policy guidelines and the dynamics of the areas themselves.</p>	
<p><i>Proposed and achieved research results and products:</i> Selnes, Trond & Paul van der Wielen (2008), Inextricably linked? The importance of area-based processes for nature conservation. (In Dutch) WOt Working Document No. xx. WOT N&M, Wageningen</p>	

National Rural Investment Budget (ILG) and water table drawdown

Programme: WOT-04-002	
Project results in 2007	
Project name	National Rural Investment Budget (ILG) and water table drawdown
Project No.	5233944-01 (2007/2.3)
<p><i>Knowledge requirements of target group:</i> There is a need for information on the following issues.</p> <ul style="list-style-type: none"> • How have negotiations on agreements about water table drawdown between the national and provincial authorities developed and to what extent have local parties been involved? • How have negotiations on water table targets between provincial and regional actors developed and what does this imply for national commitments on water table drawdown (reducing soil desiccation)? • To what extent can these two processes be characterised as 'government' or 'governance'? 	
<p><i>Objective of project:</i> The project will try to establish the extent to which the processes leading to agreements between national and provincial authorities can be characterised as 'government' or 'governance'. Subsequently, it will use an ex-ante approach to examine the way in which the provincial authorities have coordinated (or will coordinate) their area-based partners to implement the agreements (more 'government' or more 'governance'?).</p>	
<p><i>Proposed and achieved research results and products:</i> The project covers the 2007–2008 period. A WOT Report is to be published in 2008 (no title as yet).</p>	

Ex-post evaluation of administrative and financial processes in countryside stewardship schemes

Programme: WOT-04-002	
Project results in 2007	
Project name	Ex-post evaluation of administrative and financial processes in countryside stewardship schemes
Project No.	5233684-01 (2007/2.4)
<p><i>Knowledge requirements of target group:</i> What methods are used in the Dutch government's 'Nature Management' programme for countryside stewardship (Programma Beheer, PB) and the management system used by the National Forestry Service (Staatsbosbeheer, SBB) to control and test the resulting ecological quality (in terms of meeting ecological targets, sets of measures to meet objectives, spatial coherence and the corresponding preconditions), and are these methods ecologically effective?</p> <p>The project examines the way parties managing conservation areas were supervised in the past, the development of the national countryside stewardship schemes Programma Beheer and Regeling SBB, the implementation process, the supervision system, expected future developments, the available knowledge and expertise and the public support for these countryside stewardship schemes.</p>	
<p><i>Objective of project:</i> The evaluation of the PB scheme and the management system used for the SBB scheme focuses on their ecological efficacy. The process and various administrative aspects can explain the efficacy (or lack of efficacy) of the PB scheme and the supervisory system for SBB.</p> <p>The study aims to examine these issues, thus contributing to the ecological evaluation of these countryside stewardship schemes.</p>	
<p><i>Proposed and achieved research results and products:</i> The following products have been or will be delivered:</p> <ul style="list-style-type: none"> • A document to be included in the report on ecological evaluation of countryside stewardship schemes. This report was published in May 2007, and was entitled Ecological evaluation of the Programma Beheer and Staatsbosbeheer countryside stewardship schemes 2000-2006. (In Dutch) Netherlands Environmental Assessment Agency, Bilthoven, May 2007. MNP Publication No. 500410002. • Background report on process and administrative aspects (draft completed). Entitled: Supervision and costs of countryside stewardship: ecological efficacy of countryside stewardship schemes. (In Dutch) M.N. van Wijk (ed.). Background Report No. 5. WOT N&M. Wageningen, 2007 (in press).. • An article reporting on the project in a specialist journal, entitled: Changing the course of Programma Beheer? (In Dutch) Wiebren Kuindersma & Martijn van Wijk, published November 2007 in Vakblad Natuur, Bos, Landschap. 	

'Nature Management' programme for countryside stewardship: learning from neighbouring countries

Programme: WOT-04-002	
Project results in 2007	
Project name	'Nature Management' programme for countryside stewardship: learning from neighbouring countries
Project No.	LEI 20859 (2007/2.5)
<p><i>Knowledge requirements of target group:</i> The target group would like to know what can be learned from activities in neighbouring countries as regards meeting the objectives of the Dutch government's 'Nature Management' countryside stewardship programme (Programma Beheer). The main issue is the role that centralised or decentralised government can play in this respect, and the coordination between centralised and decentralised government.</p>	
<p><i>Objective of project:</i> The project aims to study how schemes comparable to the Dutch 'Nature Management' programme have been organised in neighbouring countries.</p>	
<p><i>Proposed and achieved research results and products:</i> Smits, M.J., M.J. Bogaardt, D. Eaton, P. Roza & T. Selnes, Trees and money: the Dutch 'Nature Management' programme and comparable schemes in other countries (a quick-scan study). (In Dutch) WOt Working Document No. 84, WOT N&M, Wageningen.</p>	

Economic effects of the National Rural Investment Budget (ILG) on nature and the landscape

Programme: WOT-04-002	
Project results in 2007	
Project name	Economic effects of the National Rural Investment Budget (ILG) on nature and the landscape
Project No.	LEI 20872 (2007/2.6)
<i>Knowledge requirements of target group:</i> Information is required on the money flows and institutional/administrative aspects of the ILG.	
<i>Objective of project:</i> Evaluating the economic effects of the ILG on nature and the landscape in various Dutch provinces. Particular attention will be paid to: (1) the characterisation of forms of institutional organisation and the corresponding economic-organisational aspects; (2) the arrangements that have been made to limit contract failure; (3) the way the ILG's institutional organisation works in practice; (4) the achieved or expected results.	
<i>Proposed and achieved research results and products:</i> Slangen, L.H.G., N.B.P. Polman & R.A. Jongeneel, Economic effects of the National Rural Investment Budget (ILG) on nature and the landscape. (In Dutch) WOT Report No. xx, WOT N&M, Wageningen	

Effects of the 'Environmental Permit' (WABO) on nature and the landscape

Programme: WOT-04-002	
Project results in 2007	
Project name	Effects of the 'Environmental Permit' (WABO) on nature and the landscape
Project No.	5233945-01 (2007/2.7)
<p><i>Knowledge requirements of target group:</i></p> <p>The general question this study is trying to answer is whether the introduction of the 'Environmental Permit' will change Dutch policy on nature and the landscape. Whereas the EU prefers to establish environmental guidelines per sector, the Dutch government is trying to integrate them at decentralised level in the so-called 'Environmental Permit'. Could the new Environmental Law (General Provisions) Act, or WABO, lead to discrepancies with EU Policy? Will the Environmental Permit introduced by WABO change the considerations in granting permits for activities in wildlife areas, the National Ecological Network or areas designated as 'National Landscapes', and what consequences will this have? Has any relevant experience with the Environmental Permit been gained in pilot studies?</p>	
<p><i>Objective of project:</i></p> <p>The new Environmental Law (General Provisions) Act, or WABO, will come into force in 2008. This means that the various existing permits (as well as exemptions and other requirements) on housing, spatial planning and the environment will be combined as much as possible. This should ultimately result in one permit: The 'Environmental Permit'. The Environmental Permit project is part of the programme to modernise regulations by the Ministry of Housing, Spatial Planning and the Environment, which aims to simplify and reduce regulations. The WABO is to include not only building permits on areas included in in the EHS or national landscapes, but also permits under the Dutch Nature Conservancy Act and the Flora and Fauna Act.</p> <p>The project aims to explore the consequences of the WABO's integrated environmental permit for nature and the landscape.</p>	
<p><i>Proposed and achieved research results and products:</i></p> <p>Kistenkas, F.H. & M.E.A. Broekmeyer, Nature, landscape and the Environmental Law (General Provisions) Act. (In Dutch) WOt Working Document No. 74.</p>	

Landscape monitoring system 2007

Programme: WOT-04-002	
Project results in 2007	
Project name	Landscape monitoring system 2007
Project No.	5233484-01 (2007/3.1)
<i>Knowledge requirements of target group:</i>	
<ol style="list-style-type: none">1. Assessment of the possibilities offered by new detailed satellite images or aerial photographs for automatic or semi-automatic monitoring of small landscape elements (using the 'e-cognition' technique), as a complement to available national databases.2. Assessment of the opportunities offered by the use of voluntary observers (in the MKLE monitoring system) to check baseline and follow-up measurements based on national and provincial databases as regards geological and historical data, to complement national databases.	
<i>Objective of project:</i>	
The main objective of the project is to answer the question whether and to what extent new detailed aerial images or the use of volunteer observers in the field can represent a reliable addition to the as yet limited options offered by national databases on small landscape elements.	
<i>Proposed and achieved research results and products:</i>	
Koomen et al., 2008. Monitoring the Landscape. (In Dutch) WOt Working Document No. xx, WOT N&M, Wageningen	

Amenity value of large water bodies

Programme: WOT-04-002	
Project results in 2007	
Project name	Amenity value of large water bodies
Project No.	5233489-01 (2007/3.2)
<i>Knowledge requirements of target group:</i> a. What characteristics and aspects of large water bodies are generally relevant for their amenity value, according to the literature and/or experts? b. What is the actual influence of these characteristics on this amenity value?	
<i>Objective of project:</i> The preparations for the 2008 Nature Balance report and the monitoring programme for the National Spatial Strategy require a greater understanding of and more specific data on the amenity value of large water bodies in the Netherlands. The present project focuses on the impact of certain elements on the amenity value, especially those elements that can be modified by policymaking.	
<i>Proposed and achieved research results and products:</i> Vries, S. de, Boer, T.A. de, Goossen, C.M. & Wulp, N. van der (2008). The public perception of large water bodies and the influence of specific elements. (In Dutch) WOT Report No xx. Wageningen, WOT N&M	

High-quality landscape development

Programme: WOT-04-002	
Project results in 2007	
Project name	High-quality landscape development
Project No.	5233549-01 (2007/3.3)
<i>Knowledge requirements of target group:</i> The generic policy strategy called High-Quality Landscape Development (LOK), which was introduced in the 2004 National Spatial Strategy, concentrates on process objectives, emphasising the distribution of tasks between various layers of government. The national government no longer wants to impose its views about landscape quality. The aim is to induce or challenge provincial and local authorities, district water boards and private parties to form their own opinions on what constitutes landscape quality and to keep this in mind when initiating spatial planning developments. In 2006, a method to evaluate the LOK policy strategy was developed, at the request of the Netherlands Environmental Assessment Agency (MNP) (Gerritsen, Kruit & Kuindersma, 2006). Although the proposed evaluation criteria, which focus on process aspects (since specific landscape targets that can be evaluated are lacking) allow users to assess whether provincial and local authorities are giving attention to landscape quality, they cannot assess whether the final results influence the landscape in favourable or unfavourable ways.	
<i>Objective of project:</i> The project entitled 'High-Quality Landscape Development: indicators of cultural innovation and architectural quality' aims to explore opportunities to evaluate the quality of spatial planning developments. Ideally, the project should result in an indicator, or set of indicators, that should allow architectural quality and cultural innovation to be evaluated.	
<i>Proposed and achieved research results and products:</i> Kruit, J. High-Quality Landscape Development: indicators of cultural innovation and architectural quality. (In Dutch) WOt Working Document No. xx. WOT N&M, Wageningen.	

LOCALI: developing a potentially successful set of policy instruments for local landscape management

Programme: WOT-04-002	
Project results in 2007	
Project name	LOCALI: developing a potentially successful set of policy instruments for local landscape management
Project No.	LEI 20829 (2007/4.2)
<p><i>Knowledge requirements of target group:</i> Although many citizens are engaged in efforts to preserve and improve the quality of the Dutch landscape, little is known about local landscape management by residents. The Ministry of Agriculture, Nature and Food Quality has asked the Netherlands Environmental Assessment Agency (MNP) to analyse the factors determining the success of local landscape management.</p>	
<p><i>Objective of project:</i> The project aims to analyse the factors underlying residents' contributions to the improvement of the landscape in the rural surroundings of their town or village, on the basis of four questions:</p> <ol style="list-style-type: none"> 1. How can contributions by residents to landscape improvement, and the factors determining them, be defined? 2. How can the relevant facilities and policy instruments be defined? 3. What are the motives and circumstances that determine residents' willingness to contribute to the quality of the rural parts of their municipality? 4. What are the opportunities to increase the contributions of residents by means of additional facilities and policy instruments? 	
<p><i>Proposed and achieve research results and products:</i> Overbeek, M.M.M., N. Somers & J. Vader: Landscape and Public Participation. (In Dutch) WOT Report No. xx, WOT N&M, Wageningen.</p>	

Societal context of sustainable consumption

Programme: WOT-04-002	
Project results in 2007	
Project name	Societal context of sustainable consumption
Project No.	LEI 20950 (2007/4.3)
<i>Knowledge requirements of target group:</i> The Netherlands Environmental Assessment Agency (MNP) requires information on the social context of sustainable consumption and on factors that can be modified by the authorities to promote sustainable consumption.	
<i>Objective of project:</i> A survey of the state of affairs and an evaluation of two current research programmes that offer opportunities to promote sustainable consumption.	
<i>Proposed and achieved research results and products:</i> Bakker, E. de, J.C. Dagevos & G. Spaargaren, Sustainable consumption: Social context and opportunities for policymaking. (In Dutch) WOt Report No. xx, WOT N&M, Wageningen.	

Economic significance of effects of wildlife on well-being

Programme: WOT-04-002	
Project results in 2007	
Project name	Economic significance of effects of wildlife on well-being
Project No.	5233615-01 (2007/4.4)
<i>Knowledge requirements of target group:</i> There is increasing evidence that the presence of wildlife areas in close proximity to people's residence has favourable effects on their health. It remains unclear, however, what the economic significance of this relationship could be.	
<i>Objective of project:</i> Examining the potential health benefits of wildlife areas close to residential locations in terms of the consumption of care services and losses due to sick leave.	
<i>Proposed and achieved research results and products:</i> Vries, S. de, Vreke, J. & Maas, J. (2008) Wildlife, health and money; the economic significance of health benefits from wildlife near residential areas: An exploratory study. (In Dutch) WOT Working Document xx. WOT N&M, Wageningen.	

Ecological values 1990–2000

Programme: WOT-04-002

Project results in 2007

Project name	Ecological values 1990–2000
Project No.	5233531-01 (2007/5.1)

Knowledge requirements of target group:

Determining plant species indexes using Synbiosys.

Objective of project:

The 'Ecological Value Indicator' is intended to monitor national and general biodiversity targets for the Dutch National Ecological Network (EHS). Whereas indexes for the 2000–2003 period are available, it has so far not been possible to determine indexes for the pre-2000 period, due to the lack of measurement data. The projects aims to extend the database to the 1990–2000 period.

Proposed and achieved research results and products:

M.J.S.M. Reijnen, M. van Esbroek, S. Hennekens, A. van Hinsberg & B. de Knecht. WOT report No. xx, WOT N&M Wageningen.

Assessing whether EHS species targets are being met

Programme: WOT-04-002	
Project results in 2007	
Project name	Assessing whether EHS species targets are being met
Project No.	5233511-01 (2007/5.2)
<i>Knowledge requirements of target group:</i> The current spatial resolution of species distribution data is often unsuitable for the actual spatial pattern of the Dutch 'nature target types' (i.e. combinations of plant and animal species preferred for a particular area). Various refinement techniques are therefore used to spatially link species to nature target types. This results in some degree of uncertainty in determining the degree to which the targets have been met. Since area managers and perhaps also non-governmental data management organisations possess high-resolution distribution data, we need to assess whether these data can be used to validate the refined distribution maps.	
<i>Objective of project:</i> The study is expected to contribute to the validation of the data being used in the 'Ecological Value Indicator' for the Dutch National Ecological Network (EHS), which is part of the monitoring system for the Multi-Year Programme for the Agenda for a Living Countryside (by the Ministry of Agriculture, Nature and Food Quality) and the monitoring system for the National Spatial Strategy (by the Ministry of Housing, Spatial Planning and the Environment).	
<i>Proposed and achieved research results and products:</i> 1. Pouwels, R., C. Van Turnhout & C. Van Swaay. 2008. Recommendations for the validation of 'hotspot' maps on butterflies and birds for the purpose of monitoring the targets for the Dutch National Ecological Network. (In Dutch) (Provisional title) WOT Working Document No. xx, WOT N&M, Wageningen. 2. Interim reports (by the Vlinderstichting and SOVON wildlife study associations) to assess the degree to which their detailed data can be used to validate the refinement techniques. The intended validation has not been achieved.	

Survey of ecological indicators for policy purposes

Programme: WOT-04-002	
Project results in 2007	
Project name	Survey of ecological indicators for policy purposes
Project No.	5233532-01 (2007/5.3)
<p><i>Knowledge requirements of target group:</i> In recent years, several ecological indicators have been developed for the Netherlands Environmental Assessment Agency (MNP) to allow a better, more objectified and quantified assessment of changes in ecological values. The Ecological Value Indicator is intended to monitor national and general biodiversity targets for the Dutch National Ecological Network (EHS). In addition, two new, interrelated indicators have been developed that allow monitoring of the ecological, environmental and spatial objectives and tasks for the EHS. There is a need to study the relations between these indicators and quality assurance issues, before the indicators can be applied further.</p>	
<p><i>Objective of project:</i></p> <ol style="list-style-type: none"> 1. Completion of a report on the Ecological Value Indicator and a preliminary version of an integrated survey of the available ecological indicators. 2. Quality assurance for the refined 'nature target types' map and calculation of spatial conditions. 	
<p><i>Proposed and achieved research results and products:</i></p> <ul style="list-style-type: none"> - Reijnen, M.J.S.M., A. van Hinsberg, M. van Esbroek, B. de Knecht, R. Pouwels & J. Wiertz (In prep.). An indicator for national biodiversity targets. Optimising the Ecological Value Indicator for the available monitoring networks. Ecological values 2.0. (In Dutch) WOT Report, Wageningen. To be completed by the middle of 2008. - Pouwels, R., J. van der Gref, M. van Adrichem, H. Kuipers, R. Jochem & R. Reijnen, (In prep.) Achieving the 'A' quality status for LARCH. WOT Working Document, WOT N&M, Wageningen. To be completed in the first half of 2008. - Clement, J., M.J.S.M. Reijnen, A. van Hinsberg & H. Kuipers (in prep.), Refining the 2003 nature target types map: localising 'nature target types' (i.e. combinations of plant and animal species preferred for a particular area) on the basis of ecological opportunities and current vegetation. (In Dutch) WOT Report, Wageningen. To be completed in the first half of 2008. 	

Conditions for fauna target species in the Dutch National Ecological Network (EHS)

Programme: WOT-04-002	
Project results in 2007	
Project name	Conditions for fauna target species in the Dutch National Ecological Network (EHS)
Project No.	5233512-01 (2007/5.4)
<p><i>Knowledge requirements of target group:</i> The environmental conditions for the 'nature target types' (i.e. combinations of plant and animal species preferred for a particular area) have so far been based on information derived from target plant species. It would be preferable to include fauna species as well. This requires identifying a relation between environmental factors and the distribution of target fauna species or the suitability of habitats for these species.</p>	
<p><i>Objective of project:</i> Assessing the influence of environmental factors on fauna to operationalise a monitoring system for environmental conditions.</p>	
<p><i>Proposed and achieved research results and products:</i> Pouwels, R., Reijnen, R., Kleunen, A. van, Wallis de Vries, M., Kuipers, H. & J. van der Gref, Sustainable presence of butterfly and bird species on the basis of current environmental, water-related and spatial conditions: identifying parameters for species models. (In Dutch) WOT Working Document No. xx, WOT N&M, Wageningen.</p>	

Simplifying regulations

Programme: WOT-04-002	
Project results in 2007	
Project name	Simplifying regulations
Project No.	5233515-01 (2007/5.5)
<i>Knowledge requirements of target group:</i> There is a need to integrate the various classifications used for the Dutch 'nature target types' (i.e. combinations of plant and animal species preferred for a particular area). In addition, there is a need for a typology that shows what conditions have to be met and what actions undertaken to allow a particular 'nature target type' to be achieved.	
<i>Objective of project:</i> The project aimed to propose an unequivocal typology of 'nature target types' as well as a suitable monitoring system. The characteristics of such a typology would be that it is based on 'nature target types' and habitat types, has a hierarchical structure and offers clear descriptions of the target types. Such an integrated typology should improve the communication on habitat management. As the project progressed, we found that a typology of nature target types with similar aims was already being developed as part of the Quality Assurance for the National Ecological Network (EHS) project at the Ministry of Agriculture, Nature and Food Quality. This resulted in a shift in the objectives of the present project towards evaluating the proposed typology and developing solutions to specific typology problems such as that of scale and variations in time and space.	
<i>Proposed and achieved research results and products:</i> Graft-van Rossum, J.G.M. van der & M.E. Sanders, Simplifying regulations: a study to coordinate typologies for nature target types. (In Dutch) WOT Working Document No. xx, WOT N&M, Wageningen.	

Linking FIONA and DRAM to calculate CAP options

Programme: WOT-04-002	
Project results in 2007	
Project name	Linking FIONA and DRAM to calculate CAP options
Project No.	LEI 20886 (2007/6.1)
<i>Knowledge requirements of target group:</i> How can the FIONA farm economics optimisation model and the DRAM regional economics model be linked to assess the effects of changes in the Common Agricultural Policy (CAP) at farm, regional, sectoral and national levels?	
<i>Objective of project:</i> Linking a regional economics model and a farm economics model to explore the effects of certain CAP options on nature and the landscape.	
<i>Proposed and achieved research results and products:</i> We have developed software to achieve the physical linkage between FIONA and DRAM. The combination was applied to a case study, whose results will shortly be published. Helming, J.F.M. & R. Schrijver. Effects of options for European farming subsidies for Dutch agriculture. (In Dutch) WOT Report No. xx, WOT N&M Wageningen. The project will be completed with the publication of an article in 2008.	

Effects of agricultural changes on the landscape

Programme: WOT-04-002	
Project results in 2007	
Project name	Effects of agricultural changes on the landscape
Project No.	LEI 20899 (2007/6.2)
<i>Knowledge requirements of target group:</i> Research questions: <ul style="list-style-type: none">• What is the role of farmers in preserving the core qualities of National Landscapes?• What are the main factors affecting agriculture in the National Landscapes?• What are the policy options?	
<i>Objective of project:</i> Examining the role of agriculture in areas designated as National Landscapes. Examining the developments that affect the way agriculture operates.	
<i>Proposed and achieved research results and products:</i> Verburg, RW, Leneman, H, KHM van Bommel & van Dijk, J. Does agriculture benefit the National Landscapes? An empirical analysis of agriculture and its effects on core qualities. (In Dutch) WOT Report No. xx, WOT N&M, Wageningen.	

Management of peat lowlands

Programme: WOT-04-002

Project results in 2007

Project name	Management of peat lowlands
Project No.	LEI 20945 en 5234102-01 (2007/6.3)

<i>Knowledge requirements of target group:</i>

<i>Objective of project:</i>

This study examines the effects of current peat lowlands conservation strategies on the public budgets required. This is very much an exploratory project, and it is important to communicate with stakeholders about possible solutions. The project intends to contribute to the public debate on the future of peat lowlands in the Netherlands.

<i>Proposed and achieved research results and products:</i>
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In 2007, we have consulted with experts and have defined farm models. We have developed views on the management of peat lowlands, which will be discussed in a workshop in 2008. The results will be published in a WOt Working Document by R.A.M Schrijver and D.P Rudrum of LEI and A. Corporaal and A.H.F. Stortelder of Alterra. No provisional title as yet.

Analysis of economic efficiency and ecological efficacy of area conservation contracts

Programme: WOT-04-002	
Project results in 2007	
Project name	Analysis of economic efficiency and ecological efficacy of area conservation contracts
Project No.	LEI 20930 (2007/6.4)
<i>Knowledge requirements of target group:</i> Analytical insight into the way area conservation contracts are functioning. Insight into the practical operation of area conservation contracts.	
<i>Objective of project:</i> The project entails an analytical and quantitative exploration of the economic and ecological efficacy of collective area conservation contracts. The analysis compares collective area conservation contracts (involving multiple parties) and contracts with individual parties.	
<i>Proposed and achieved research results and products:</i> Jongeneel, R.A., N.B.P. Polman, L.H.G. Slangen, J.A. Guldenmond, E. Hees & E. van Well Economic and ecological efficacy of area conservation contracts. (In Dutch) WOt Report No. xx, WOT N&M, Wageningen	

Supplying information on salt water bodies for the Water theme in the 2008 Nature Balance report

Programme: WOT-04-002	
Project results in 2007	
Project name	Supplying information on salt water bodies for the Water theme in the 2008 Nature Balance report
Project No.	4396220101 (2007/7.1)
<p><i>Knowledge requirements of target group:</i></p> <ol style="list-style-type: none"> 1. Specifying the Ecological Value Indicator for salt water bodies. 2. Trends in policy-relevant indicators since 1990. 3. Actual or potential importance of protected areas for particular species. 4. A literature study of fisheries and fishery policies and the ecological effects of fisheries. 	
<p><i>Objective of project:</i></p> <p>The project aims to produce a clear overview of marine biodiversity, from the perspective of an integrated ecosystem approach, focusing on fisheries as the main users affecting the ecosystem.</p>	
<p><i>Proposed and achieved research results and products:</i></p> <p>Reports:</p> <ul style="list-style-type: none"> - Wim L.T. van Densen & Harriet M.J. van Overzee. (228) Fifty years of North Sea fisheries and fisheries management. (In Dutch) IMARES Report (draft completed) - Erik Meesters, Remment ter Hofstede, Ilse de Mesel, Johan Craymeersch & Peter Reijnders (2008) The state of salt-water wildlife in the Netherlands. Fish, benthos and sea mammals. (In Dutch) IMARES Report. Draft completed. - Bram Aarts, Loes van den Bremer, Erik van Winden & Dirk Zoetebier (2008). Supplying trend information and reference values on coastal birds. (In Dutch) SOVON Report. Draft completed. Han J. Lindeboom, Rob Witbaard & Erik Meesters. Protecting North Sea areas. Habitat types, conservation targets and management measures. Draft completed. 	

Current water table situation in conservation areas

Programme: WOT-04-002	
Project results in 2007	
Project name	Current water table situation in conservation areas
Project No.	5233864-01 (2007/7.3)
<i>Knowledge requirements of target group:</i> Water table drawdown is a major problem in efforts to meet national and international biodiversity targets. The Netherlands Environmental Assessment Agency (MNP) requires a national map providing up-to-date ecohydrology data for locations with ecosystems (or intended ecosystems) depending on groundwater.	
<i>Objective of project:</i> The project aims to produce a grid map with 25x25 m cells showing the current water table situation for areas with 'nature target types' (i.e. combinations of plant and animal species preferred for a particular area) that depend on groundwater.	
<i>Proposed and achieved research results and products:</i> Hoogland T., G.B.M. Heuvelink & M. Knotters, Average water tables in conservation areas since 1990; GxG maps and their accuracy. (In Dutch) WOt Working Document No. xx (provisional title). WOT N&M, Wageningen.	

Benchmarking external policy environment for nature and the landscape

Programme: WOT-04-002	
Project results in 2007	
Project name	Benchmarking external policy environment for nature and the landscape
Project No.	LEI 20834 (2007/8.1)
<p><i>Knowledge requirements of target group:</i> A survey of knowledge available in neighbouring countries about the EU's influence on nature and the landscape. What is known in neighbouring countries about the effects on nature and the landscape of EU regulations like the Nitrate Directive, the changeover to farm subsidies and the environmental measures for farms? What publications are available on what topics, and what conclusions do they draw? What was the context in which these reports were produced?</p>	
<p><i>Objective of project:</i> A scientific comparison between various EU Member States in terms of the consequences of EU policies (Nitrate Directive, CAP) and their effects on nature and the landscape. In particular, we aim to assess what is known in the Netherlands, England, Flanders and North Rhine-Westphalia about the effects on nature and the landscape of the Nitrate Directive, the changeover to farm subsidies and the environmental measures for farms.</p>	
<p><i>Proposed and achieved research results and products:</i> The project covers the 2007–2008 period. The report is due to be published in 2008.</p>	

Benchmarking the implementation of Natura 2000 in EU countries

Programme: WOT-04-002	
Project results in 2007	
Project name	Benchmarking the implementation of Natura 2000 in EU countries
Project No.	5233865-01 (2007/8.2)
<p><i>Knowledge requirements of target group:</i> The general knowledge-related question the study is trying to answer is how the Birds and Habitat Directives have been implemented in various countries, especially in terms of the management and monitoring of N2000 areas, and how the process of implementation relates to the current support for the policy on N2000 areas.</p>	
<p><i>Objective of project:</i> All EU countries are implementing the Birds and Habitat Directives, and most countries have already selected the relevant areas. The first report to the European Commission about the current conservation status of species and habitats will be presented in 2007. The countries are now at a stage where they have to set up systems for management and monitoring. The project aims to compare the situations in Belgium, Germany and England in order to examine how the management and monitoring of N2000 areas have been organised or will be organised, and how the process of implementation and monitoring relates to the current support for the policy on N2000 areas. It tries to find out what lessons can be learned from this for the further implementation of the N2000 policy and other (European) environmental and conservation policies and which of these lessons can be applied in the Netherlands.</p>	
<p><i>Proposed and achieved research results and products:</i> As agreed in the project proposal, the final report is due to be published in April 2008.</p>	

Benchmarking landscape ambitions and management in an international context

Programme: WOT-04-002	
Project results in 2007	
Project name	Benchmarking landscape ambitions and management in an international context
Project No.	5233538-01 (2007/8.3)
<i>Knowledge requirements of target group:</i>	
There is a need in the Netherlands for information about landscape policies and their implementation in neighbouring countries.	
<i>Objective of project:</i>	
Countries around the Netherlands have very divergent ambitions for landscape conservation and use a great variety of instruments to achieve this. This makes it difficult to measure the efficacy of the Dutch landscape policies against that of policies in other countries. The project therefore aims to compare the ambitions for landscape conservation in North Rhine-Westphalia (G), Flanders (B) and England (UK) and their effects with those in the Netherlands.	
<i>Proposed and achieved research results and products:</i>	
In accordance with the project proposal, no definitive products have become available in 2007. The project continues until the end of March 2008, and will result in a paper to be published in a scientific journal, with the provisional title: Benchmarking Landscape Policy in North-West Europe, Pedrolì, B., R. Schröder & D. Wascher, to be submitted to <i>Landscape and Urban Planning</i> . In addition, the project will supply background information for the joint report on the three benchmarking projects.	

Plant dispersion module for the Nature Planner system

Programme: WOT-04-002	
Project results in 2007	
Project name	Plant dispersion module for the Nature Planner system
Project No.	5231765-01 (2007/8.4)
<i>Knowledge requirements of target group:</i> The Netherlands Environmental Assessment Agency (MNP) uses the 'Nature Planner' instruments to evaluate environmental and nature conservation policies. The instruments include several models to simulate soil and vegetation processes. So far, however, it has lacked a model to simulate plant dispersion. Such a model should especially improve the simulations offered by the MOVE model (which calculates the probability that certain plant species etc. occur at a given location).	
<i>Objective of project:</i> The project aims to further develop the first prototype of the dispersion model.	
<i>Proposed and achieved research results and products:</i> Wamelink, G.W.W., J. van der Gref, J. Franke, A.H. Prins & R. Jochem. Technical documentation for DIMO 1.0. (In Dutch) WOT Working Document No. xx, WOT N&M, Wageningen Wamelink, G.W.W., J. van der Gref, J. Franke, A.H. Prins & R. Jochem. Background and test results for DIMO Version 1.0. (In Dutch) WOT Working Document No. xx, WOT N&M, Wageningen.	

Cost-effectiveness of target species conservation

Programme: WOT-04-002	
Project results in 2007	
Project name	Cost-effectiveness of target species conservation
Project No.	LEI 31156 and 5234073-01(2007/9.1)
<p><i>Knowledge requirements of target group:</i> How can an ecological network be designed to preserve the maximum number of target species in the most cost-effective way?</p>	
<p><i>Objective of project:</i> The project aims to build on the 2006 HAMBO model (project No. 20742, 'Developing a model for a cost-effective nature conservation policy') to develop the SERES (SElection of REserve Sites) model. SERES calculates how the Dutch National Ecological Network (EHS) should be designed in order to preserve a given number of target species at minimum cost, or to maximise the number of target species preserved within a given budget. The SERES calculations take account of the 'nature target type' (i.e. the combination of plant and animal species preferred for a particular area) for the areas at stake, the target species associated with these nature target types, the spatial situation of the areas and the spatial requirements of the species. SERES will be developed in such a way as to ensure that it can process sufficient quantities of data to analyse the entire EHS, and that it meets the current quality assurance protocols for models used by the Agricultural Economics Research Institute (LEI).</p>	
<p><i>Proposed and achieved research results and products:</i> Kruseman, G. & D.P. Rudrum, Description of the SERES model. (In Dutch) WOT Report No. xx, WOT N&M, Wageningen</p>	

Cost-effectiveness of the National Ecological Network and relations with biodiversity and environmental conditions

Programme: WOT-04-002	
Project results in 2007	
Project name	Cost-effectiveness of the National Ecological Network and relations with biodiversity and environmental conditions
Project No.	LEI 31110 and 5233826-01 (2007/9.2)
<p><i>Knowledge requirements of target group:</i> Previous cost-effectiveness studies have assessed the relations between costs and environmental conditions in the areas included in the Dutch National Ecological Network (EHS). The present study goes one step further: it examines the relations between costs and the quality (in terms of biodiversity) of natural areas.</p>	
<p><i>Objective of project:</i> (1) Examining the relation between costs and biodiversity. Testing the robustness of the results by means of sensitivity analyses regarding the assumptions on generic deposition policy and on the costs expected to be incurred.</p>	
<p><i>Proposed and achieved research results and products:</i> Some of the results have been presented in the 2007 Nature Balance report. A WOt Report will be published in 2008 (no provisional title).</p>	

Cost-effectiveness of Natura 2000 sites

Programme: WOT-04-002	
Project results in 2007	
Project name	Cost-effectiveness of Natura 2000 sites
Project No.	LEI 31039 and 5233669-01 (2007/9.3)
<i>Knowledge requirements of target group:</i> Information on the cost-effectiveness of nature conservation policy for the Natura 2000 areas. Applying the cost-effectiveness method to the habitat types in Natura 2000 areas.	
<i>Objective of project:</i> The project aims to survey the costs of implementing the Natura 2000 areas and calculate the cost-effectiveness of this implementation, on the basis of the habitat types currently present. This implies assessing the extent to which the existing cost-effectiveness methodology must be adjusted to base the cost calculations on habitat types rather than the 'nature target types' used in the Netherlands so far.	
<i>Proposed and achieved research results and products:</i> Oltmer, K., K.H.M. van Bommel, J. Clement, J.J. de Jong, D.R. Rudrum & E.P.A.G. Schouwenberg (2008) Costs of implementing habitat types in Natura 2000 areas. (In Dutch) WOt Report No. xx, WOT N&M, Wageningen	

Instruments to manage National Landscapes: Effects on core qualities (INLEK)

Programme: WOT-04-002	
Project results in 2007	
Project name	Instruments to manage National Landscapes: Effects on core qualities (INLEK)
Project No.	LEI 20898 (2007/9.4)
<p><i>Knowledge requirements of target group:</i> What instruments can be used to preserve or develop the core qualities in the areas designated as 'National Landscapes', and which instruments (or combinations thereof) would be most suitable for this purpose? What is the relation between the behaviour of the various target groups (especially the agricultural sector) and the instruments to be employed?</p>	
<p><i>Objective of project:</i> What instruments can be employed to preserve and/or develop the core qualities in the Dutch 'National landscapes' and which ones are most suitable, especially for the agricultural sector, one of the target groups.</p>	
<p><i>Proposed and achieved research results and products:</i> Leneman, H. J. Vader & M.J. Bogaardt, Instruments for core qualities. (In Dutch) WOt Report or Working Document No xx, WOT N&M, Wageningen.</p>	

Basic map of natural areas (2007 phase)

Programme: WOT-04-002	
Project results in 2007	
Project name	Basic map of natural areas (2007 phase)
Project No.	5233803-01 (2007/10.4)
<i>Knowledge requirements of target group:</i> Monitoring changes in the total surface area of natural areas in the Netherlands.	
<i>Objective of project:</i> The 'Basic Map of Terrestrial Natural Areas' is part of a geo-information framework to collect information on the distribution of ecological values. Since versions of the basic map are available for 1990 and 2004, a comparison between the two should reveal the changes over time. Developing a high-quality user guide for the database would make the database easier to use.	
<i>Proposed and achieved research results and products:</i> The project covers 2007 and 2008. A WOt Working Document is to be published in 2008 (no provisional title as yet).	

Implementation of management and development plan for knowledge models on landscape (2007)

Programme: WOT-04-002	
Project results in 2007	
Project name	Implementation of management and development plan for knowledge models on landscape (2007)
Project No.	5233525-01 (2007/10.6)
<p><i>Knowledge requirements of target group:</i> The Alterra research institute has developed three knowledge models for the Landscape Indicator used by the Netherlands Environmental Assessment Agency (MNP):</p> <ul style="list-style-type: none"> • KELK: Knowledge Model for Effects on Landscape Quality • Perception GIS • Monitoring Landscape Scale <p>MNP wants these models to have at least the 'A' quality status, to assess the effects of changes on the quality of the Dutch landscape.</p> <p><i>Research questions</i> The research questions have been formulated in the Management and Development Plans for the MNP's Knowledge Model for Effects on Landscape Quality, Monitoring Landscape Scale model and Perception GIS model (Nieuwenhuizen et al. 2004 and Roos-Klein Lankhorst 2007 (In Prep.)). These plans include activities to improve the way these models are managed, updated and developed.</p> <p><i>Objective of project:</i> The project aims to update and improve the three models to be used for the MNP's Landscape Indicator, and to achieve the 'A' quality status for these models in 2007. An important step towards achieving the A status is to switch to sustainable software. This will be done in a separate project, which will also be led by Janneke Roos. She will ensure that the two projects are closely coordinated. This project description focuses on the 2007 activities to improve the three models themselves.</p> <p><i>Proposed and achieved research results and products:</i> <i>We had intended to deliver relatively sustainable versions of the three models in 2007, which would have the A quality status, as well as an updated Management and Development Plan.</i></p> <p>The project plan, however, already anticipated possible delays: 'Switching to new software is, however, an unpredictable process, and it is possible that we will be forced to change course at some time during the year. If this is the case, all models may not yet be operational in new software by the end of 2007. We will in any case ensure the availability of operational versions within the current Osiris software. This would, however, mean that the models would not receive the A status in 2007.'</p> <p>In the event, it turned out to be more work than expected to activate the tool that was needed to allow the knowledge tables to be used in ArcGIS (the sustainable software). As a consequence, the models could be only partially converted. In addition, the client requested considerable changes to the actual mode of operation of the models relative to the 2006 version, which have been implemented. The current planning is to apply for the A quality status in 2008, and at the same time implement further adjustments to the models as such.</p> <p>The mode of operation of the models is described in: Roos-Klein Lankhorst, J., F. Brouwer, A.J.M. Koomen, M.M. van der Werff & T.J. Weijsschede, The</p>	

KELK Monitoring System, version 2, to monitor generic core qualities for the National Spatial Strategy. (In Dutch) WOt Working Document No. xx, WOT N&M, Wageningen
Roos-Klein Lankhorst, J. & W. Nieuwenhuizen 'Management and Development Plan for the 2007 MNP models: Knowledge model for Effects on Landscape Quality, Monitoring Landscape scale and Perception GIS. (In Dutch) WOt Working Document No. xx, WOT N&M, Wageningen.

Raising FIONA to the 'A' quality status

Programme: WOT-04-002	
Project results in 2007	
Project name	Raising FIONA to the 'A' quality status
Project No.	LEI 20917 (2007/10.7)
<i>Knowledge requirements of target group:</i> Is the theoretical and programming structure and underpinning of the FIONA (Farm-level Integrated Optimisation model for Nature and Agriculture) sufficient, and is there a system to ensure that its quality is maintained?	
<i>Objective of project:</i> The project aims to improve FIONA to such an extent that it becomes eligible for the 'A' quality status, or to indicate what aspects of FIONA need to be improved to achieve this status.	
<i>Proposed and achieved research results and products:</i> Rudrum, D.P. (2008) Description of the FIONA model: application for 'A' quality status. (In Dutch) WOt Working Document xx, WOT N&M, Wageningen.	

Uncertainty analysis for the soil map – SMART – SUMO – MOVE chain of models

Programme: WOT-04-002	
Project results in 2007	
Project name	Uncertainty analysis for the soil map – SMART – SUMO – MOVE chain of models
Project No.	5232891-01 (2007/10.8)
<p><i>Knowledge requirements of target group:</i> Analyses carried out by and for the Netherlands Environmental Assessment Agency (MNP) involve calculations using models, databases and conversion modules linked in 'chains'. Uncertainties in one component can be propagated into other components and affect the final outcomes of the chain of models. The main research question is how much uncertainties in the various components in the soil map – SMART/SUMO – MOVE chain of models (and other linked components) contribute to the uncertainty in the final outcome.</p>	
<p><i>Objective of project:</i> The primary objective of the project is to identify 'weak links' in the chain of models, that is, which components or parameters (or groups of parameters) contribute most to the uncertainty in the model chain outcome. In addition, the analysis should offer opportunities to indicate the level of reliability in conclusions drawn with the help of this chain of models.</p>	
<p><i>Proposed and achieved research results and products:</i> The intended result is a report containing: (1) a description of the methodology; (2) descriptions of the input and output and the uncertainty contributed by the input to the output; (3) recommendations for improvements to and investments in the chain of models; (4) a description of the uncertainties in particular applications of the chain of models which have been assessed. This result is not yet available. The delay has been caused by the complexity of the project (resulting from the limited experience with uncertainty analyses of chains of models using spatial input data, as well as problems experienced by Alterra in implementing the MNP's Nature Planner system (see evaluation 2006/11.4) and the fact that each of the three components has been developed by a different developer / source owner. The interim results of the project will be presented in a WOt Working Document provisionally entitled: Wamelink et. al. (2008). Error propagation in the 'soil map–SMART2/SUMO2–MOVE' chain of models. (In Dutch) WOT Working Document No. xx, WOT N&M Wageningen.</p>	

Meta-version of Nature Planner system

Programme: WOT-04-002	
Project results in 2007	
Project name	Meta-version of Nature Planner system
Project No.	5233962-01 (2007/10.9)
<i>Knowledge requirements of target group:</i> There is a need for knowledge about changes in vegetation resulting from changes in nutrient deposition levels, hydrology and management. This knowledge should be presented in the form of simple graphs, tables and rules-of-thumb for use in policymaking and management.	
<i>Objective of project:</i> Presenting dose-effect relationships in habitat management in forms that are easy to interpret.	
<i>Proposed and achieved research results and products:</i> The project is to be continued in 2008. The report will be published in 2008.	

ETC-LUSI

Programme: WOT-04-002	
Project results in 2007	
Project name	ETC-LUSI
Project No.	5233463-01 (2007/10.10)
<i>Knowledge requirements of target group:</i> The Netherlands Environmental Assessment Agency (MNP) needs better coordination with European research and policies regarding land use and spatial information.	
<i>Objective of project:</i> The ETC-LUSI consortium assists the European Environmental Agency (EEA), the European Commission and other European Topic Centres (ECTs) in analysing spatial environmental data and designing European data infrastructures. Contributions from national expertise play an important role in this service.	
<i>Proposed and achieved research results and products:</i> Validation of Globcover, CLC2006, case study CAP: Elbersen, B.S., Doorn, A. & Neaff, H. (2008). CAP expenditure and the targeting to environmentally sensitive areas in the Netherlands, LUSI Working Document. SDI/INSPIRE meeting at Porto; workshop on Ecological connectivity and ecosystem assessment	

Ecological Oracle

Programme: WOT-04-002
Project results in 2007

Project name	Ecological Oracle
Project No.	5233614-01 (2007/10.11)

Knowledge requirements of target group:

Researchers at the Netherlands Environmental Assessment Agency (MNP) are often called upon to quickly and efficiently answer ad-hoc questions about nature conservation in the Netherlands. This usually requires combining data from files in large national databases. This is often a complicated and time-consuming process, which severely impedes the efficiency and speed of efforts to answer such ad-hoc questions. In addition, researchers often need to perform the same operations over and over again for questions which differ only in minor details. The 'Ecology Oracle' tries to solve this problem by annually making frequently used file combinations more easily accessible via an Oracle database and a software application that allows such combined files to be rapidly and efficiently searched and processed. An example is the 'Basic Map of Natural Areas' and the combinations being used in the quality assurance programme for the National Ecological Network.

Objective of project:

The 'Ecological Oracle' offers opportunities to store results of analyses for re-use, documentation, consultation and presentation purposes. The aim of the present definition study is to identify the needs of users, assess possible alternatives and start up the development process.

Proposed and achieved research results and products:

Some 10 questionnaire surveys have been held to assess the need for information. The results have been presented in the form of a Powerpoint presentation. The proposal to start the Ecological Oracle has led to the initiation of a follow-up project to develop a 'Geodatabase for Quality Assurance on Nature Conservation', which will store all relevant databases on nature conservation in a 2.5 m grid, and which can be used to evaluate policies and derive maps of habitat types like the 'Basic Map of Natural Areas'.

Basic Map of Wetland Habitats, GeoDatabase (stage 2 etc.)

Programme: WOT-04-002	
Project results in 2007	
Project name	Basic Map of Wetland Habitats, GeoDatabase (stage 2 etc.)
Project No.	533188-01 (2007/10.12)
<p><i>Knowledge requirements of target group:</i> There is a need for a basic map of aquatic habitats, which should meet the following primary requirements:</p> <ol style="list-style-type: none"> 1. being based on a topographic map, preferably TOP-10 NL; 2. including all large and small water bodies from TOP-10; 3. having a legend in accordance with the typology developed by Didderen et al. in their 2006/7.2 project; 4. being compatible with the Basic Map for Terrestrial Natural Areas; 5. meeting the requirements for the 'A' quality status (controlling the quality of the input). 	
<p><i>Objective of project:</i> There is currently no national map of natural areas in the Netherlands. Now that the Basic Map of Terrestrial Natural Areas is almost complete, there is a need for a similar basic map of Dutch wetlands, the Basic Map of Wetland Habitats (Basiskaart Natuur aquatisch (BNa)). The project aims to design a GeoDatabase for a Basic Map of Wetland Habitats (BNa), including all relevant source databases, combined with a number of relevant policy databases. The BNa will use the typology developed by Didderen et al.</p>	
<p><i>Proposed and achieved research results and products:</i> - A GIS procedure to classify water-related objects from the TOP10/Vector database into planar and linear objects. A sub-dataset with water-related objects subdivided into planar objects (ponds and lakes) and linear shapes (rivers etc.).</p>	

Reporting on Basic Research

Programme: WOT-04-002	
Project results in 2007	
Project name	Reporting on Basic Research
Project No.	5232455-03
<i>Knowledge requirements of target group:</i> The Dutch government is in need of knowledge on nature, landscape and the environment in their administrative, economic and social contexts. The Statutory Research Tasks Unit for Nature & the Environment (WOT N&M) supplies this information in particular to the Ministry of Agriculture, Nature and Food Quality and the Netherlands Environmental Assessment Agency (MNP). This project plays a major part in this process.	
<i>Objective of project:</i> Unequivocal reporting on the WOT products delivered by the Nature Policy Assessment Task unit. The aim is to create a clear distinction between those MNP publications for which the MNP is entirely responsible (such as statutory products and thematic assessments) and results of basic research for which the prime responsibility rests with Wageningen University and Research Centre and the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M)), rather than with MNP.	
<i>Proposed and achieved research results and products:</i> The following numbers of publications were produced in 2007: WOT Study: 1 WOT Reports: 17 WOT Working Documents: 17	

Programme management

Programme: WOT-04-002	
Project results in 2007	
Project name	Programme management
Project No.	5233493-01
<i>Knowledge requirements of target group:</i> The knowledge development process within this programme is organised in the form of ten 'themes', which integrate the research fields of biodiversity, landscape, economic context, and government & society. These themes have been established (in terms of relevance, knowledge requirements, state of knowledge development and research questions for 2007) by the Programme Committee	
<i>Objective of project:</i> Programme No. WOT-04-002, entitled Basic Research for the Nature Policy Assessment Task, is a component of the action programme for the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M). The objective of the programme is to strengthen the knowledge base that is used by the Netherlands Environmental Assessment Agency (MNP) to implement its statutory Nature Policy Assessment Task. The project aims to ensure an efficient and effective organisation and management for the programme, as part of the 'knowledge cycle' implemented by MNP and WOt.	
<i>Proposed and achieved research results and products:</i> WOT Report (2008, in prep.) Annual reports for 2007. WOT Working Document No. xx, WOT N&M Wageningen.	

3 WOT-04-003 - Ecological & Environmental Consultancy

3.1 Report on WOT-04-003 programme

Statutory Research Tasks for Nature and the Environment (WOT N&M)

Programme WOT-04-003: Ecological & Environmental Consultancy

1. Name and No. of cluster, name of cluster manager:
WOT-04,
WOT N&M
P.J.W.Hinssen
2. Name and No. of Programme
WOT-04-003,
Ecological & Environmental Consultancy
3. Name of programme coordinator and Wageningen UR department:
P.J.W.Hinssen, Alterra
4. Contact person(s) at Ministry of Agriculture, Nature and Food Quality and directorate at ministry / other persons involved and name of organisation:
Gelare Nader (Dept. of Nature)
Werner Pol (CTB, Dutch Board for the Authorisation of Pesticides)
Mark de Bode (Dept. of Knowledge),
Stefan Verbunt (Dept. of Nature)
5. Participating centres of expertise within and outside Wageningen UR:
Alterra
IMARES
6. Target groups:
Dutch parliament, ministers, policy departments at the Ministries of Agriculture, Nature and Food Quality; Housing, Spatial Planning and the Environment; and Transport, Public Works and Water Management.
7. 2007 budget:

Amounts in € x 1000	Available in 2007	Spent in 2007	Transferred to 2008
Budget transferred from 2006	10.0	10.0	0
Normal programme resources	578.0	578.0	0
Additional project resources from Ministry of Agriculture, Nature and Food Quality			
Total from Ministry of Agriculture, Nature and Food Quality	588.0	588.0	0
Other (if applicable)		N.A.	N.A.

Brief comments on resources spent and transferred.

All proposed projects have been implemented virtually as planned in terms of results, timing and budget.

8. Policy task(s) of the Dutch Ministry of Agriculture, Nature and Food Quality to which the research findings contribute:

The Ministry of Agriculture, Nature and Food Quality and the Executive Board of Wageningen University & Research Centre confirm the Statutory Research Tasks for Nature and the Environment (WOT N&M) in a series of implementation contracts. The implementation contract for the Ecological & Environmental Consultancy programme was signed in December 2007, and covers the 2008-2012 period. It defines the tasks and working agreements ensuing from the statutory advisory tasks.

The budget for the 2007 activities was allocated ad hoc by the Ministry of Agriculture, Nature and Food Quality. The action programme for 2007 was drafted and implemented on the basis of the working agreement entitled WOT-Advisering N&M. This includes the following additional budget resources:

- * 100,000 euros in the Fertilisers and Minerals programme for the working groups of the Committee of Experts for the Fertilisers Act;
- * Funding for advice by the Dutch Board for the Authorisation of Pesticides (CTB).

The 95,000 euros requested for the knowledge base to maintain key expertise for the WOT Ecological and Environmental Consultancy programme was not yet allocated in 2007, as the relevant implementation contract was not yet in force at the time.

9. Knowledge-related questions that relate to the policy task(s) and are to be answered by the research findings:

see the Implementation Contract WOT-Advisering N&M and the corresponding working agreements. These have been specified for 2007 as follows:

Task	Contact	Knowledge required in 2007
Advising LNV on IWC	Stefan Verbunt (LNV-DN)	Dutch contribution to IWC
Advising LNV on ASCOBANS	Stefan Verbunt (LNV-DN)	Dutch contribution to ASCOBANS
Advising LNV on TWO	Stefan Verbunt (LNV-DN)	Dutch contribution to TWO
Antarctica research	Gelare Nader (LNV-DN)	Dutch contribution to international research
Advice on the Fertilisers Decree	De Bode (LNV-DK)	Advice on authorisation of fertilisers
Committee of Experts for Fertiliser policy	De Bode (LNV-DK)	Advice on fertilisers policy
Advising CTB	Werner Pol (CTB)	Advice on authorisation of pesticides
CTB instruments	Werner Pol (CTB)	Instruments for the assessment of pesticide authorisation

10. Proposed and achieved results or interim results for 2007:

Task	Results achieved in 2007
Advising LNV on IWC	Annual progress reports on whale research; annual reports of IWC meetings
Advising LNV on ASCOBANS	Annual reports on ASCOBANS meetings, working group and Harbour Porpoise Recovery project
Advising LNV on TWO	Monitoring results, research paper on seals (once every 5 years), Quality Status Report (Marine Mammals), advice provided on request
Antarctica research	Scientific publications, membership commitments for

	various international bodies, advisory reports, participating in expedition
Advice on the Use of Fertilisers Decree	Advisory reports provided on request
Committee of Experts for the Fertilisers Decree	Advisory reports provided on request
Advising CTB	Advisory reports provided on request
CTB instruments	Helpdesk, website, training, quality assurance

11. Knowledge transfer to target group and utilisation of knowledge by target group

The reported results are delivered to target groups in various ways. Working documents ensure that fellow researchers within the organisation can build on previous findings. The contacts for each project ensure that external policymaking target groups are informed of the results achieved.

12. Collaboration between DLO research institutes involved in the programme and other institutes/organisations:

This programme includes projects by the Alterra (approx. 50%) and IMARES (approx. 50%) research institutes. The projects differ greatly in terms of topics and target groups. Research on fertilisers and pesticides is being carried out in collaboration with experts at Wageningen University & Research Centre and elsewhere and with the Dutch Board for the Authorisation of Pesticides (CTB). The Antarctica research project collaborates closely with a large international consortium. The involvement of experts in the project's international activities in the context of IWC, ASCOBANS and TWO is very much an interactive exchange. The activities have been allocated within the terms and conditions set by the WOT statute and are based on annual agreements with the Ministry of Agriculture, Nature and Food Quality in accordance with the statutory tasks.

3.2 Project reports for WOT-04-003

Survey of WOT-04-003 projects:

Project No.	Project name	Page
439.32011.01	Advising LNV on TWO	17
439.62009.01	Advising LNV on IWC	19
439.62010.01	Advising LNV on ASCOBANS	21
439.62013.01	Antarctica research	23
5232694-02	Programme and WOT Management	25
5232850-01 and 5232691-01	Committee of Experts for the Fertilisers Decree	27
5233523-01	Instruments for CTB consultancy	31

Advising LNV on TWO

Programme WOT-04-003

Project results in 2007

Project name	Advising LNV on TWO
Project No.	43932011.01

Knowledge requirements of target group:

Policies on and management of Common and Grey Seals and Harbour Porpoise in and near the Wadden Sea have been laid down in the 5-year Seal Management Plan (SMP), which has been agreed by the responsible ministers in the three countries adjoining the Wadden Sea. This SMP is the practical specification of a Trilateral Wadden Sea Agreement as confirmed by the Agreement on the Conservation of Seals in the Wadden Sea, concluded under the Bonn Convention. The responsible authorities need research and advice to support the policymaking process for this SMP, as well as its implementation and the resulting recommendations. In addition, there is a need for advice on the international management of seals outside the Wadden Sea.

IMARES, and specifically Prof. P.J.H. Reijnders, was requested by the Ministry of Agriculture, Nature and Food Quality to provide the research and advice for the Dutch contribution to the trilateral agreement and the advice on international management of seals outside the Wadden Sea.

Objective of project:

The project aims to contribute to the implementation of the Dutch government's policy on the management of seals and porpoises in the Wadden Sea. This contribution takes the form of participation in activities and meetings of the Trilateral Seal Expert Group (TSEG), which are organised and implemented jointly with the Common Wadden Sea Secretariat (CWSS). In addition, the project has two secondary aims: (a) assisting and advising the Department of Regional Affairs, southern division, of the Ministry of Agriculture, Nature and Food Quality as regards seal management in the south-western Delta region and (b) assisting and advising the Dutch government, specifically the Department of Nature of the Ministry of Agriculture, Nature and Food Quality, to support its position on international issues relating to the management of seals, especially endangered species, outside the Wadden Sea area.

Proposed and achieved research results and products:

Härkönen, Tero, Sophie Brasseur, Jonas Teilmann, Cecile Vincent, Rune Dietz, Kai Abt & Peter Reijnders 2007. Status of grey seals along mainland Europe from the Southwestern Baltic to France. In: Tore Haug, Mike Hammill & Droplaug Ólafsdóttir (eds), Grey seals in the North Atlantic and the Baltic. NAMMCO Scientific Publications, vol. 6, 57-68.

Meesters, Erik, Peter Reijnders, Sophie Brasseur, Ursula Siebert, Michael Stede, Svend Tougaard & Tero Härkönen 2007. An effective survey design for harbour seals in the Wadden Sea: tuning Trilateral Seal Agreement and EU-Habitat Directive requirements. Paper presented to the Trilateral Working Group, Delfzijl, 22 March 2007, TWG Document TWG 07/1/5.1.

Reijnders, Peter J.H., Sophie M.J.M. Brasseur, Kai F.Abt, Ursula Siebert, Michael Stede & Svend Tougaard 2007. Aerial surveys of harbour and grey seals in the Wadden Sea in 2007. Wadden Sea Newsletter 32: Population age-composition returning to a stable age-structure? www.waddensea-secretariat.org

Trilateral Seal Expert Group (Reijnders, Peter J.H., Sophie M.J.M. Brasseur, Thomas Borchardt, Ursula Siebert, Michael Stede & Svend Tougaard) & CWSS 2007. Conservation and Management Plan for the Wadden Sea Seal Population from 2007-2010. 16pp. www.waddensea-secretariat.org

Advising LNV on IWC

Programme WOT-04-003	
Project results in 2007	
Project name	Advising LNV on IWC
Project No.	439.62009.01
Knowledge requirements of target group: The Netherlands is a member of the International Whaling Commission (IWC) because the Dutch government wants to be able to influence international policies on the management of cetaceans. The position adopted by the Dutch delegation in the IWC is in favour of protection. Since several of the world's countries hold a different opinion on this subject, it is important that the Dutch preferences for policies and the ensuing management are based on solid scientific evidence. The instruments the Dutch government uses to influence international policymaking are its participation in the Scientific Committee, which formulates the scientific advice for all whale species, and its contributions to the Committee meetings.	
Objective of project: The project contributes to the implementation of the government's policy on whale management. Participating in the Scientific Committee ensures that the Dutch point of view co-determines the scientific advice provided by this Committee to the Commission. Members of the project team take part in the annual Commission meetings as members of the Dutch delegation, in order to assist the delegation in its decisions. This is particularly important when ad hoc advice is required on the consequences of compromise proposals tabled during the meetings. The ultimate goal of the project is to ensure that the policy on cetaceans formulated by the Dutch government is heard in the appropriate forum and to monitor whether the various aspects of this policy are reflected in the actual management.	
Proposed and achieved research results and products: Reijnders, P.J.H. 2007. Netherlands Progress Report on Cetacean Research, May 2006 – May 2007, with statistical data for the calendar year 2006. SC/59/Prog Report The Netherlands, 5pp. Hall, A.H., McConnell, B.J., Rowles, T.K., Aguilar, A., Borrell, A., Schwacke, L., Reijnders, P. J. H. & Wells, R. S. 2006. An individual based model framework to assess the population consequences of polychlorinated biphenyl exposure in bottlenose dolphins. <i>Environ. Health Perspect.</i> 114 (suppl.1): 60-64. Reijnders, P.J.H. 2007. Report on the meetings of the Scientific Committee of the International Whaling Commission at Anchorage, Alaska, 7 to 18 May 2007. 17pp. (In Dutch) Kastelein, Ronald, A., Sander van der Heul, Jan van der Veen, Willem C. Verboom, Nancy Jennings, Dick de Haan & Peter J.H. Reijnders 2007. Effects of acoustic alarms, designed to reduce small cetacean bycatch in gillnet fisheries, on the behaviour of North Sea fish species in a large tank. <i>Mar. Env. Res.</i> 64: 160-180. Wilson, Joanna., Randall Wells, Alex Aguilar, Asuncion Borrell, Peter J.H. Reijnders, Michael Moore and John J. Stegeman 2006. Correlates of Cytochrome P450 1A1 expression in bottlenose dolphin (<i>Tursiops truncatus</i>) integument biopsies. <i>Tox. Sciences</i> 97: 111-119.	

Advising LNV on ASCOBANS

Programme WOT-04-003

Project results in 2007

Project name	Advising LNV on ASCOBANS
Project No.	439.62010.01

Knowledge requirements of target group:

The status of small cetaceans in the North Sea and Baltic Sea is a cause of concern. Harbour porpoise populations in particular have been severely reduced over the last few decades. In addition, there is evidence (in the form of data on stranded animals and sightings) that other species are also decreasing. In order to stop the decline and promote recovery, a number of countries, including the Netherlands, have concluded the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS), under the auspices of the Bonn Convention. To ensure the implementation of the Agreement and the achievement of its goals, the member states have drawn up a Conservation and Management Plan, with a corresponding Work Plan. The Work Plan is evaluated every three years during a meeting of all member states (Meeting of Parties, or MOP), and a new Plan formulated. The draft Work Plan is drawn up by the Advisory Committee, which also implements the definitive Work Plan. The Netherlands contributes to the work of this Committee.

Objective of project:

The project aims to contribute to the implementation of Dutch policies on the management of small cetaceans in the area covered by the Agreement, especially the Dutch commitments relating to its own coastal waters, including the Dutch continental shelf. Active participation in the Advisory Committee ensures that Dutch views on the conservation and management of small cetaceans, and Dutch research activities in this field, are presented at international forums and contribute to the successful achievement of ASCOBANS' objectives. The Department of Nature of the Dutch Ministry of Agriculture, Nature and Food Quality has asked Professor P.J.H. Reijnders of the IMARES research institute to represent the Netherlands as a member of the Advisory Committee and to act as scientific adviser to the Dutch delegation at the MOP. In addition, incidental advice is provided to the Ministry of Agriculture, Nature and Food Quality as required. This project helps implement the intended national and international policies on the protection and management of small cetaceans. In addition, the feedback from the results achieved at the MOP and in the Advisory Committee supports the internal Dutch decision-making process on these issues and keeps it up to date as required.

Proposed and achieved research results and products:

- Conservation Plan for Harbour Porpoises (*Phocoena phocoena* L.) in the North Sea, 2nd draft, to be presented at 15th AC meeting
- MOP 5: Proceedings of the 5th Meeting of the Parties to ASCOBANS (2006) (www.ascobans.org)
- Report of the 14th Meeting of the Advisory Committee to ASCOBANS, San Sebastián, Spain, 19 - 21 April 2007(www.ascobans.org)
- MOP5: ASCOBANS Triennium Work Plan for 2007-2009 (www.ascobans.org)

Antarctica research

Programme WOT-04-003	
Project results in 2007	
Project name	Antarctica research
Project No.	439.62013.01

Knowledge requirements of target group:

Ecological knowledge that is relevant to international habitat management and protection in Antarctica (as regards fisheries management; zoning and protected areas; protection of species and biodiversity; climate-related problems). The target group wants to know the significance of sea ice for the population sizes and diversity of Antarctic animal species.

Objective of project:

As a voting party to the Antarctic Treaty since 1991, the Dutch government is committed to investing in research in the Antarctic region. To this end, various ministries have jointly initiated the Netherlands AntArctic Programme (NAAP). In the context of WOT N&M, the Dutch Ministry of Agriculture, Nature and Food Quality has commissioned Wageningen IMARES (Institute for Marine Resources & Ecosystem Studies) to do research to support the Dutch voting position and stance in the treaty system.

Proposed and achieved research results and products:

- Van Franeker, J.A. 2007. Antarctic Petrel. pp 75-77 in: Riffenburgh, B. (Ed.) Encyclopedia of the Antarctic. Routledge, New York.
- Van Franeker, J.A. 2007. Seabirds at sea. pp 870-874 in: Riffenburgh, B. (Ed.) Encyclopedia of the Antarctic. Routledge, New York.
- Creuwels, J.C.S., Poncet, S., Hodum, P.J., & Van Franeker, J.A. 2007 Distribution and abundance of the Southern Fulmar *Fulmarus glacialis*. *Polar Biology* 30: 1083-1097.
- Creuwels, J.C.S., Van Franeker, J.A., Doust, S.J., Beinssen, A., Harding, B., & Hentschel, O. 2007. Breeding strategies of Antarctic Petrels *Thalassoica antarctica* and Southern Fulmars *Fulmarus glacialis* in the high Antarctic and implications for reproductive success. IBIS doi: 10.1111/j.1474-919x.2007.00767.x.
- Flores, H., Haas, C., Van Franeker, J.A., & Meesters, E. in press. Density of pack-ice seals and penguins in the western Weddell Sea in relation to ice thickness and ocean depth. *Deep-Sea Research II* (in press).
- Krapp, R.H., Berge, J., Flores, H., Guliksen, B., & Werner, I. (in press) Eusirid and Lysianassid Amphipods under Antarctic Pack Ice. *Deep-Sea Research II* (in press).
- Van Franeker, J.A., & Flores, H. 2007. South Pole and pipe-fishes? (In Dutch) Nieuwsbrief NZG 8(1/2): 4.
- Van Franeker, J.A., Flores, H., Fijn, R.C., & Wolff, W.J. 2007. Scratching the surface. Programme and Posters of the IPY Polar Symposium, Groningen, March 9, 2007. NPP/IPY Office, NWO, The Hague
- Creuwels, J.C.S. : & Van Franeker, J.A. 2007. Food for thought. Programme and Posters of the IPY Polar Symposium, Groningen, March 9, 2007. NPP/IPY Office, NWO, The Hague.
- Fijn, R.C.: & Van Franeker, J.A. 2007. Diet of Cape Petrel (*Daption capense*) and Snow Petrel (*IPagodroma nivea*) at Signy, South Orkney Islands, Antarctica. Programme and Posters of the IPY Polar Symposium, Groningen, March 9, 2007. NPP/IPY Office, NWO, The Hague.

Information in the form of photos, videos and text on many websites, including:

- www.pooljaar.nl/poolijs/
 - www.kennisonline.wur.nl/WOT/WOT-04/003/002
 - www.jafweb.nl
- Plus the sites of AWI, IMARES; NWO; Cousteau Society, ...

Media contributions

Radio: Vroege Vogels; VPRO Noorderlicht (Dutch radio programmes), Television: RTL Nieuws (Dutch TV news)

Printed media: Noord-Hollands Dagblad; Resource; KennisOnLine; WOT's New

Programme management for the WOT Ecological & Environmental Consultancy programme

Programme WOT-04-003	
Project results in 2007	
Project name	Programme management for the WOT Ecological & Environmental Consultancy programme
Project No.	232694-02
Knowledge requirements of target group: Supervision, planning and control are required to ensure effective and efficient resource use and project implementation in the WOT-04-003 programme.	
Objective of project: Supervision and planning & control activities aim at an effective and efficient use of resources and implementation of projects under the WOT Ecological & Environmental Consultancy programme.	
Proposed and achieved research results and products: Effective and efficient use of resources and implementation of projects under the WOT-04-003 programme.	

Committee of Experts for the Fertilisers Act (CDM)

Programme WOT-04-003
Project results in 2007

Project name	Committee of Experts for the Fertilisers Act (CDM)
Project No.	232850-01 / 5232691-01

Knowledge requirements of target group:
 Providing a scientific basis for the standards, fixed values and fertiliser recommendations in the Fertilisers Act. The Fertilisers Act regulates the nitrogen and phosphate flows in Dutch agriculture in order to reduce the environmental impact of excess nitrogen and phosphate.

Objective of project:
 Drawing up recommendations to underpin standards, fixed values and fertiliser recommendations for the Fertilisers Act.

Proposed and achieved research results and products:
 The table below presents an overview of the recommendations made by the CDM to the Dutch Ministry of Agriculture, Nature and Food Quality in 2007. Copies of these recommendations are available on the CDM website:

<http://www.kennisonline.wur.nl/WOT/WOT-04/003/008/producten.htm>

Date	Recommendation
4 January 2007	Reference monitor to support derogation
22 January 2007	Review of N fertilisation recommendation for summer wheat
12 February 2007	Review of N fertilisation recommendation for fruit trees
18 July 2007	Plan of approach for application standards for arable farming and outdoor vegetable production
26 July 2007	Plan of approach for dune sand and loess soil
17 September 2007	Plan of approach for phosphate application standards
28 September 2007	Phosphate application standards
1 October 2007	Plan of approach for derogation
10 December 2007	N excretion by young suckler cows
10 December 2007	Leaching fraction for dune sand and loess soil
10 December 2007	Applications standards for arable and horticultural crops
14 December 2007	Review of operational plan for nitrogen and phosphate contents of duck
Draft sent to LNV by e-mail in late November	Detailed review of nutrient balances for animal housing units and gaseous nitrogen losses from intensive livestock farming
Draft sent to LNV by e-mail in late November	Monitoring the manure market in 2006
Throughout the year.	About 20 assessments of applications, supplementary information and objections to previous decisions under the regulations on exemptions for manure production rights under the fertilisers Act (POR) (not published on website)
Throughout the year.	Assessment of requests for exemptions under the 1947 Fertilisers Act / 1977 Fertilisers Decree. <ul style="list-style-type: none"> • New applications: 1 • Continuation of 2006 assessment procedures: 4

Throughout the year.	Assessment of cofermentation materials: <ul style="list-style-type: none"> • New data forms: 14 • Continuation of 2006 assessment procedure: about 10 This has resulted in 11 recommendations to the Ministry of Agriculture, Nature and Food Quality
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The activities of the CDM working groups will be reported on in the BO-05 programme (Minerals and Environmental Quality). The following products have been delivered by WOT and Policy Supporting Research (BO):

Aarts, H.F.M., D.J. den Boer, J.C. van Middelkoop & J. Oenema, 2007. Farming consequences of stricter and more differentiated phosphate application standards for dairy farming. (In Dutch) Wageningen, Plant Research International.

Berge, ten H.F.M. A.M. van Dam, B.H. Janssen & G.L. Velthof (2007) Manure policy and soil fertility in the coastal dunes and bulb growing region. Recommendations by the CDM Working Group on Manure Policy and Soil Fertility in the Dune and Bulb Growing area. (In Dutch) WOT Working Document No. 47, WOT N&M, Wageningen.

Chardon, W.J., M. Pleijter, C. van der Salm, O.F. Schoumans & O. Oenema, 2007. Environmental consequences of stricter and more differentiated phosphate applications standards in agriculture. (In Dutch) Wageningen, Alterra, Alterra Report No. 1571.

Dijk, W. van, P.H.M. Dekker, H.F.M. ten Berge, A.L. Smit & J.R. van der Schoot, 2007. Farming consequences of stricter and more differentiated phosphate application standards for arable farming and horticulture. (In Dutch) Praktijkonderzoek Plant en Omgeving, publication No. 367 (in prep; to be published in 2008).

Dijk, T.A., van J.J.M. Driessen. P.A.I. Ehlert, P.H. Hotsma, M.H.M.M. Montforts, S.F. Plessius & O. Oenema (2007). Protocol for the assessment of substances under the Fertilisers Act, Version 1.0, 27 December 2007. (In Dutch) Working Document (in prep; to be published in 2008).

Dijk W. van & J.J. Schröder (2007) Recommendations for nitrogen application standards for arable and horticulture crops on sandy and loess soils under various assumptions. AGV PPO No. 371, Praktijkonderzoek Plant & Omgeving B.V., Lelystad.

Dijk, W. van, P.H.M. Dekker, H.F.M. ten Berge, A.L. Smit & J.R. van der Schoot, 2007. Farming consequences of stricter and more differentiated phosphate application standards for arable farming and horticulture. (In Dutch) Praktijkonderzoek Plant en Omgeving, Publication No. 367.

Fraters, B., L.J.M. Boumans, T.C. van Leeuwen, & J.W. Reijs (2007) Leaching of excess nitrogen to groundwater and surface water on farms. (In Dutch) RIVM Report No. 680716002/2007, RIVM, Bilhoven.

Fraters B, Leeuwen TC van, Reijs J, Boumans LJM, Aarts HFM, Daatselaar GHG, Doornewaard GJ, Hoop DW, Schroder JJ, Velthof GL, & Zwart MH (2007) Farming practices and water quality on farms that have applied for derogation. Description of measurement network design for the 2006–2009 period and contents of reports from 2006. (In Dutch) RIVM Report No. 680717001, 53 pp.

Groenestein, K. Cor van Bruggen, Paul Hoeksma, Age Jongbloed, & Gerard Velthof (2008) Detailed assessment of stable balances and gaseous nitrogen losses from intensive livestock farming. (In Dutch) WOt Report No. 60. WOT N&M, Wageningen.

Schröder, J.J., H.F.M. Aarts, J.C. van Middelkoop, R.L.M. Schils, G.L. Velthof, B. Fraters, & W.J.

Willems (2007) Permissible manure and fertilizer use in dairy farming systems on sandy soils in The Netherlands to comply with the Nitrates Directive target. *European Journal of Agronomy* 27, 102–114.

Schröder, J.J., G.L. Velthof, J.R. van der Schoot & W. van Dijk (2007) Effect of delayed leaching on nitrogen excess at arable farms and market gardens and dairy farms. (In Dutch) Memorandum No. 492 Plant Research International, Wageningen.

Velthof G.L. & B. Fraters, 2007. Nitrate leaching from dune sand and loess soil (In Dutch). Wageningen, WOT N&M, WOt Repport No. 54. 36 pp.

Velthof G.L. & O. Oenema, 2007. Creating a balanced manure market. (In Dutch) *Agrarisch Dagblad* 5 December 2007, p. 14.

Duinhoven, G. van (2007) Committee of Experts of the Fertilisers Act advises on sensitive fertilisers act (In Dutch). Wot's new No. 11, WOT N&M Newsletter.

Velthof G.L. & O. Oenema, 2007. Memorandum in preparation of the 2007 round-table conference on evaluating the Fertilisers Act with members of parliament, 5 December 2007. (In Dutch)

Instruments for CTB consultancy

Programme WOT-04-003

Project results in 2007

Project name	Instruments for CTB consultancy
Project No.	5233523-01

Knowledge requirements of target group:
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No specific knowledge development is required; the project uses available knowledge. What is required is quality assurance for the software used to assess authorisation applications, support for users of the software and elimination of any bugs in the software.

Objective of project:

The project aims to contribute to the above objective by providing high-quality maintenance and support for the software packages being used by the Dutch Board for the Authorisation of Pesticides (CTB).
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Proposed and achieved research results and products:

Boesten J. J. T. I., A. Tiktak & R. C. van Leerdam, 2007. Manual of PEARLNEQ v4. WOT Working Document No. 71, WOT N&M, Wageningen.

Van den Berg, F. , J. Te Roller, J.G. Groenwold en P.I. Adriaanse. FOCUS_SWASH bug fix release, to be submitted to FOCUS Version Control.

4 WOT-04-005 - Monitoring the Agenda for a Living Countryside (M-AVP)

4.1 Report on WOT-04-005 programme

Statutory Research Tasks for Nature and the Environment (WOT N&M)

Programme WOT-04-005: Monitoring and Evaluation of the Agenda for a Living Countryside

1. Name and No. of cluster, name of cluster manager:
WOT-04; Paul Hinssen
2. Name and No. of Programme
WOT-04-05: Monitoring system for the 'Agenda for a Living Countryside' (ME AVP)
3. Name of programme coordinator:
Dr L.A.E. Vullings, Alterra CGI
4. Contact person(s) with Ministry of Agriculture, Nature and Food Quality
Paul Sinnige (Dept. of Rural Affairs)
Other persons involved:
Noor Dassing (Dept. of Knowledge)
Andre Smit (Dept. of Rural affairs)
Peter Kouwenhoven (Ministry of Housing, Spatial Planning & the Environment, Directorate –General for the Environment (VROM-DGM))
Marcel Wetter (VROM-DGM)
5. Participating centres of expertise:
Alterra, Agricultural Economics Research Institute (LEI), ABF, Netherlands Environmental Assessment Agency (MNP)
6. Target group(s):
Ministry of Agriculture, Nature and Food Quality, Dept. of Rural Affairs (coordinator of 'Agenda for a Living Countryside')
Users: Dutch parliament and ministers Policy departments at the ministries of Agriculture, Nature and Food Quality; Housing, Spatial Planning and the Environment; and Transport, Public Works & Water Management Provincial Authorities National planning offices
Suppliers: Policy departments at the ministries of Agriculture, Nature and Food Quality; Housing, Spatial Planning & the Environment; and Transport, Public Works & Water Management (Government activities) Provincial authorities (achievements and effects) Centres of expertise (information on effects) Implementing services (information on effects and achievements)
7. 2007 budget:

Amounts in € x 1000	Available in 2007	Spent 2007	in 2008	Transferred to
Budget transferred from 2006	249,5	202	47,5	
Normal programme resources	310	80	231	
NAP resources				
Additional project resources from Ministry of Agriculture, Nature and Food Quality				
Total from Ministry of Agriculture, Nature and Food Quality	559.5	282	277.5	
Other (if applicable)	N.A.	N.A.	N.A.	
Annual reports for 2007 - WOT-04				135

The budget resources transferred from 2006 (249.5 kEuros) were almost entirely spent on the further design and development of the Monitoring System for the Agenda for a Living Countryside (M-AVP), with its associated documentation. A small part of the budget (47.5 kEuros) was transferred to 2008, in order to complete the system as agreed.

The baseline assessment of the effect indicators, which was planned for 2007, started in the autumn of 2007, as did the quality assurance project for the indicators. Since these projects have not yet been completed, a large part of the budget allocated for 2007 is being transferred to 2008.

Summary of programme (for more information please consult the individual project reports):

8. Policy task(s) of the Dutch Ministry of Agriculture, Nature and Food Quality to which the research findings contribute:

The 'Agenda for a Living Countryside' (AVP) strategy was presented in April 2004 as a joint policy strategy by the Dutch Ministries of Agriculture, Nature and Food Quality (LNV), Housing, Spatial Planning and the Environment (VROM) and Transport, Public Works and Water Management (V&W), with the intention of ensuring that rural areas are prepared for future changes. The Agenda for a Living Countryside is based on an integrated approach and focuses on economic, ecological, social and cultural aspects of rural areas. Monitoring is necessary to test the progress made by the policy strategy and to explain the degree to which the policies designed are actually implemented. Policy implementation is based on the Multi-Year Programme for the Agenda for a Living Countryside (MJP2), which was completed in February of 2006, and on the National Rural Areas Investment Budget Act (WILG).

The WOT programme called Monitoring & Evaluation System for the Agenda for a Living Countryside aims to develop and coordinate a system to assess the efficacy and efficiency and the rural areas policies laid down in the Agenda for a Living Countryside. This requires data at the level of input (targets), outcome (effects), results and output (achievements).

At the same time, the monitoring system also serves to signal relevant issues: developments in the rural areas policy field that do not relate directly to the policy objective but may have effects that require new policies or changes in existing policies. In addition, monitoring and evaluation can make essential contributions to efforts to improve the transparency of policies and their implementation, as well as to knowledge development, knowledge dissemination and justification of rural areas policy.

9. Knowledge-related questions that relate to the policy task(s) and are to be answered by the research findings:

- What effect indicators and corresponding target values for a living countryside can be included in the Monitor-AVP?
- What assessment strategies will be used for the effect indicators?
- What are the 2007 values of the effect indicators (baseline assessment)?
- What could an information system to monitor the AVP look like?
- How can long-term implementation of the Monitor AVP system be organised?
- How can quality assurance for a system like the Monitor AVP be achieved?

10. Proposed and achieved results or interim results for 2007:

The following products have been delivered:

- Annual Plan of Action for the entire M-AVP programme for 2007.
- Database and viewer, including draft versions of standardised reporting system for the provincial authorities and input module.
- Factsheets for each of the AVP indicators in the Second Multi-Year Programme (MJP2).

- Management document for the M-AVP for the 2008–2014 period.
- Coordination of the monitoring and evaluation activities for the Monitor AVP system and coordination with other monitoring initiatives (National Spatial Strategy, ILG-PEIL).
- Draft WOT Study.
- First draft of research paper.

Some of the products intended for 2007 have not been completed:

- Authorisation, standardised reporting system, input module.
- Advice on quality assurance.
- Technical reporting.
- Definitive version of WOT Study.
- Definitive version of research paper.

11. Knowledge transfer to target group and utilisation of knowledge by target group

In the course of 2007, the project team has given several presentations on the 'viewer' and its context to groups involved: the Dutch Government Service for Land and Water Management (DLG), the national coordinating team for the Rural Areas Investment Budget (RCT), policy departments at the ministries and management teams. All presentations were very favourably received, particularly since the structure of the viewer corresponds fully to that of the policy, with which the audiences were familiar.

The management document was approved by the Departments of Rural Affairs and Knowledge of the Ministry of Agriculture, Nature and Food Quality as well as the Statutory Research Tasks Unit for Nature & the Environment, and has been added to the WOT implementation document as an annex.

The choice of effect indicators and the corresponding target values have been tailored to the indicators referred to in the budget estimate of the Ministry of Agriculture, Nature and Food Quality. A report on the baseline assessment will be presented at the spring meeting at the Ministry of Agriculture, Nature and Food Quality.

12. Collaboration between DLO research institutes involved in the programme and other institutes/organisations:

In the course of 2007, the M-AVP programme has assisted the Department of Rural Affairs of the Ministry of Agriculture, Nature and Food Quality in setting up the M-AVP system. A number of tasks, such as implementing the system and documenting the process, were primarily carried out by the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M). Consultations with the ministries involved (Agriculture, Nature & Food Quality and Housing, Spatial Planning & the Environment) were held on a monthly basis. In addition, intensive collaboration was established with various institutions and organisations on the following three subjects:

- Policy development: ILG project team, national coordinating team (Dept. of Regional Affairs), provincial authorities (via the IPO interprovincial consultation programme).
- Cohesion between monitoring and evaluation activities: Netherlands Environmental Assessment Agency, Ministry of Housing, Spatial Planning and the Environment.
- Data supply and implementation: DLO research institutes (Alterra, LEI (Agricultural Economic Research Institute)), institutes in the MNP network (RIVM (National Institute for Public Health & the Environment), RIKZ (National Institute for Coastal and Marine management), RIZA (Institute for Inland Water Management and Wastewater Treatment), Statistics Netherlands) and data supply agencies like DLG (Dutch Government Service for Land and Water Management) and DR (National Service for the Implementation of Regulations).

Collaboration with other organisations at project level is described in the individual project reports.

4.2 Project reports for WOT-04-005

Survey of WOT-04-005 projects:

Project No.	Project name	Page
5232764-01	Management document of the Monitoring System for the 'Agenda for a Living Countryside' (M-AVP)	17
5232765-01	Exploring baseline effect assessment	19
5232766-01 and 5232767-01	Monitoring System AVP	21
5232768-01	Documentation for the M-AVP	23
5232769-01	Coordination and Communication for the M-AVP	25
5233912-01	Quality assurance for M-AVP and Natura 2000 indicators	27
5234064-01	Baseline assessment of Ecological effect indicators	29
5234065-01	Baseline assessment of the effect indicators for Socio-Economic Viability.	31
5234113-01 and LEI 31178	Baseline assessment of effect indicators for Reconstruction.	33
5234132-01	Baseline assessment of effect indicators for Recreation	35
5234143-01	Baseline assessment of effect indicators for Landscape	37

Management of Monitoring system for the 'Agenda for a Living Countryside' (M-AVP)

Programme WOT-04-005:	
Project results in 2007	
Project name	Management document of Monitoring system for the 'Agenda for a Living Countryside' (M-AVP)
Project No.	5232764-01
<i>Knowledge requirements of target group:</i> How can the management of M-AVP (in terms of logistics, organisation and system technology) be designed?	
<i>Objective of project:</i> The objective of this project is to describe the long-term organisational and logistical aspects of the M-AVP programme management.	
<i>Proposed and achieved research results and products:</i> The management plan (Implementation Document) has been presented. The Implementation Document for the M-AVP was approved by Atty Bruins (Dept. of Rural Affairs), Wim de Haas (Dept. of Knowledge) and Paul Hinssen (WOT) on 5 July 2007. It was confirmed in the M-AVP management meeting and added as an annex to the WOT N&M's M-AVP implementation contract for the database management and the action programme.	

Exploring baseline effect assessment

Programme WOT-04-005:	
Project results in 2007	
Project name	Exploring baseline effect assessment
Project No.	5232765-01
<i>Knowledge requirements of target group:</i> Designing effect indicators and preparing the baseline assessment within the framework of the Monitoring System for the 'Agenda for a Living Countryside'.	
<i>Objective of project:</i> The 2007 objective of the ME-AVP Indicators projects is: <ol style="list-style-type: none">1 After the set of essential indicators has been decided on, specifying the indicators in fact sheets, after consultation with researchers for each policy theme.2 Preparing the baseline assessment on the basis of the established AVP indicators, acting as intermediaries between researchers and policy staff at the Ministry of Agriculture, Nature and Food Quality, and ensuring the progress of the project.	
<i>Proposed and achieved research results and products:</i> <ul style="list-style-type: none">• Dessing, N., H.J. Agricola and L. Treep 2006. <i>Effect indicators for the second Multi-Year programme (MPJ2) for the AVP: Monitoring the general policy goal against acceptable cost</i>. (In Dutch) Ministry of Agriculture, Nature and Food Quality, Department of Knowledge, Ede• Designing a set of effect indicators for each AVP theme.• Implementing a baseline assessment for each AVP theme.• Factsheets to explain and justify the approach chosen for the baseline assessment for each theme.• Collecting the baseline assessments of the various themes in a publication (2008).	

Management of Monitoring system for the 'Agenda for a Living Countryside' (M-AVP)

Programme WOT-04-005:	
Project results in 2007	
Project name	Monitoring system for the 'Agenda for a Living Countryside' (M-AVP)
Project No.	5232766-01 and 5232767-01
<p>Knowledge requirements of target group: How can the 'Agenda for a Living Countryside' programme be monitored? Developing a monitoring system that fulfils the target group's needs.</p>	
<p>Objective of project: The objective is to construct and manage the core ME-AVP system, consisting of a database for the storage and management of data and data import and export options.</p>	
<p>Proposed and achieved research results and products: The project has already been implemented, but since additional questions were raised, it will be completed in the early months of 2008.</p> <p>Results achieved: Database, viewer, first version of input module for the provincial authorities, first version of progress report for provincial authorities, first draft of report for parliament, national coordination team and Control Unit. Intended results: Keeping viewer and database up to date, completing the input module and reports, introducing the authorisation system, adjusting the 'look-and-feel' system.</p>	

Documentation for the M-AVP

Programme WOT-04-005:	
Project results in 2007	
Project name	Documentation for the M-AVP
Project No.	5232768-01
<i>Knowledge requirements of target group:</i> Evaluating the process to develop a monitoring and evaluation system, and identifying the lessons that can be learned from this for future projects, as well as ensuring a sound scientific basis for the process.	
<i>Objective of project:</i> The objective of this subproject is to provide a generally accessible report (WOT Study) on the entire M-AVP system, based on the results of previous subprojects, which can serve as a basis for the long-term implementation of the M-AVP, and to write a journal article.	
<i>Proposed and achieved research results and products:</i> A draft for the WOT Study report has been written and will undergo two review rounds. The review and revision process will take place in 2008. The aim is to complete the WOT Study before the M-AVP becomes operational (in the summer of 2008). There is also a preliminary draft for the journal article. This will be worked out further in 2008.	

Coordination and Communication for the M-AVP

Programme WOT-04-005:	
Project results in 2007	
Project name	Coordination and Communication for the M-AVP
Project No.	5232769-01
<i>Knowledge requirements of target group:</i> Coordinating the process to develop a monitoring system for the 'Agenda for a Living Countryside'.	
<i>Objective of project:</i> The objective of the project is to provide coordination and communication for the WOT project 04-005, entitled Monitoring System for the 'Agenda for a Living Countryside', as described in the action plan (Appendix B of this project plan). The project will entail the following activities: <ul style="list-style-type: none"> • Programme management: content and funding. • Coordination with policy development relating to the Multi-Year Programme for the 'Agenda for a Living Countryside' (MJP-AVP) and the National Rural Investment Budget (ILG). • Coordination with related monitoring systems for the National Spatial Strategy, the EU's Rural Development Programme (RDP) and ILG. • Strengthening the profile and communicating the results of the M-AVP programme (e.g. through the <i>Kennis Online</i> (Online Knowledge) service developed by Wageningen University and Research Centre). • Programme consultations with the Statutory Research Tasks Unit for Nature and the Environment (WOT N&M). 	
<i>Proposed and achieved research results and products:</i> The following results have been achieved: An efficient programme, minutes of meetings, programme description and evaluation, contacts with other WOT initiatives and coordination with other monitoring systems, presentations to various groups on the M-AVP.	

Quality assurance for M-AVP and Natura 2000 indicators

Programme WOT-04-005:	
Project results in 2007	
Project name	Quality assurance for the M-AVP and Natura 2000 indicators
Project No.	5233912-01
<i>Knowledge requirements of target group:</i> The Department of Rural Affairs of the Ministry of Agriculture, Nature and Food Quality wants more information on the quality requirements imposed by the Netherlands Court of Audit and the Dutch parliament on policy information such as that included in the M-AVP, and wants to know whether the M-AVP is currently meeting these requirements and what measures should be taken to ensure the system's quality.	
<i>Objective of project:</i> The project aims to assess what quality requirements the policy information included in the M-AVP system (in the form of indicators) must meet when it is tested by bodies like the Netherlands Court of Audit and the Dutch parliament. These requirements should then be used to test the quality of the indicators (insofar as they are available), and the results of these tests will be used to formulate recommendations for quality improvement or assurance.	
<i>Proposed and achieved research results and products:</i> A draft report has been written, presenting the preliminary findings from literature studies and interviews with stakeholders. The project will be continued in 2008, with a number of additional interviews and some more literature study. The project is expected to be completed in the autumn of 2008.	

Baseline assessment of Ecological effect indicators

Programme WOT-04-005:
Project results in 2007

Project name	Baseline assessment of Ecological effect indicators
Project No.	5234064-01

Knowledge requirements of target group:

Accurate monitoring of the effect indicators for the Ecology theme requires a baseline assessment with which follow-up assessments can be compared.

Objective of project:

Implementing the baseline assessment for the three ecological effect indicators (species, population and quality/quantity of ecosystems).

Proposed and achieved research results and products:

Factsheets have been produced and baseline assessments carried out for the first two indicators. The third indicator is still under development, so the baseline assessment will take place in 2008. Results achieved: a completed factsheet and baseline values for the species and population effect indicators.

Baseline assessment of the effect indicators for Socio-Economic Viability

Programme WOT-04-005	
Project results in 2007	
Project name	Baseline assessment of the effect indicators for Socio-Economic Viability
Project No.	5234065-01

<p><i>Knowledge requirements of target group:</i> Accurate monitoring of the effect indicator for the Socio-Economic Viability theme requires a baseline assessment with which follow-up assessments can be compared.</p>
<p><i>Objective of project:</i> Implementing the baseline assessment for the effect indicator for socio-economic viability.</p>
<p><i>Proposed and achieved research results and products:</i> The intended results have been partly achieved: Results achieved: a completed factsheet. The baseline value for the socio-economic viability indicator remains to be established. The project (baseline assessment) is to be completed in 2008.</p>

Baseline assessment of effect indicators for the agricultural reconstruction areas

Programme: WOT-04-001	
Project results in 2007	
Project name	Baseline assessment of effect indicators for agricultural reconstruction areas
Project No.	5234113-01 and LEI 31178
<i>Knowledge requirements of target group:</i> Preparing the baseline assessment of effect indicators for the 'agricultural reconstruction areas of sandy soils' theme within the framework of the M-AVP.	
<i>Objective of project:</i> Implementing a baseline assessment for the AVP assessment network.	
<i>Proposed and achieved research results and products:</i> <ul style="list-style-type: none">- Implementing the baseline assessment for the 'reconstruction areas' for each of the AVP themes.- Producing a factsheet to explain and justify the approach used for the baseline assessment.- Presenting the results of the baseline assessment.	

Baseline assessment of effect indicators for Recreation

Programme WOT-04-005	
Project results in 2007	
Project name	Baseline assessment of effect indicators for Recreation
Project No.	5234132-01
<p><i>Knowledge requirements of target group:</i> Accurate monitoring of the effect indicators for the Recreation theme requires a baseline assessment with which follow-up assessments can be compared.</p>	
<p><i>Objective of project:</i> Implementing the baseline assessment for the effect indicator for Recreation.</p>	
<p><i>Proposed and achieved research results and products:</i> The intended results have been partly achieved: Since certain data from third parties have not yet been received, no results regarding the recreational use and satisfaction aspects can as yet be presented. This part of the project is to be completed in 2008. Results on the accessibility of recreational green spaces are available. The conclusion is that, in 2007, anybody living the Netherlands was within 10 minutes' cycling distance of recreational green space.</p> <p><i>Supplementary results:</i> In 2007, 4% of Dutch residents were NOT within 10 minutes' cycling distance of recreational green space. This corresponds to over 600,000 residents. In 2007, 0.3% of Dutch residents were NOT within 10 minutes' cycling distance of a natural wildlife area. This corresponds to over 45,000 residents. In 2007, 4% of Dutch residents were NOT within 10 minutes' walking distance of recreational green space. This corresponds to nearly 700,000 residents.</p>	

Baseline assessment of effect indicators for Landscape

Programme WOT-04-005
Project results in 2007

Project name	Baseline assessment of effect indicators for Landscape
Project No.	5234143-01

Knowledge requirements of target group:

Accurate monitoring of the effect indicators for the Landscape theme requires a baseline assessment with which follow-up assessments can be compared.

Objective of project:

Implementing the baseline assessment for the effect indicator for Landscape.

Proposed and achieved research results and products:

The intended results have been partly achieved.

Results achieved: A completed factsheet. The baseline value for the landscape indicator remains to be established. This part of the project is to be completed in 2008.

5 WOT-04-006 - Nature Policy Assessment Task

5.1 Report on WOT-04-006 programme

Statutory Research Tasks for Nature and the Environment (WOT N&M)

Programme WOT-04-006: Nature Policy Assessment Task
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1. Name and No. of cluster, name of cluster manager:
WOT-04,
Statutory Research Tasks for Nature & the Environment
P.J.W. Hinssen
2. Name and No. of Programme
WOT-04-006,
Nature Policy Assessment Task
3. Name of programme coordinator and Wageningen UR department:
P.J.W. Hinssen, Alterra
4. Contact person(s) at Ministry of Agriculture, Nature and Food Quality and directorate at ministry / other persons involved and name of organisation:
Henk Groenewoud (Dept. of Nature),
Sander van Opstal (Dept. of Knowledge),
Adiel Jahangir (Dept. of Knowledge),
Jaap Wiertz (Netherlands Environmental Assessment Agency MNP)
5. Participating centres of expertise within and outside Wageningen UR:
Alterra
Agricultural Economics Research Institute (LEI)
6. Target groups:
Dutch parliament, ministers, policy departments at the Ministries of Agriculture, Nature and Food Quality; Housing, Spatial Planning and the Environment; Transport, Public Works and Water Management; and Economic Affairs.
7. 2007 budget:

Amounts in € x 1000	Available in 2007	Spent in 2007	Transferred to 2008
Budget transferred from 2006	71	71	0
Normal programme resources	2830	2551	279
NAP resources			
Additional project resources from Ministry of Agriculture, Nature and Food Quality	370	370	0
Total from Ministry of Agriculture, Nature and Food Quality	3271	2992	279
Other (if applicable)		N.A.	N.A.

Brief comments on resources spent and transferred.

By and large, the intended projects have been implemented according to plan.

8. Policy task(s) of the Dutch Ministry of Agriculture, Nature and Food Quality to which the research findings contribute:

The Nature Policy Assessment Task is a statutory instrument supporting Dutch nature policy (created under the act of 24 December 1997, regulating the creation of the Nature Policy Assessment Task). It serves to identify trends and problems, evaluate policy achievements and forecasts of the extent to which existing policies are achieving their aims, as well as to present social and land-use trends in terms of opportunities for and threats to nature. The programme produces a Nature Balance report each year and a Nature Outlook report every four years. These reports are commissioned by the Executive Board of the Ministry of Agriculture, Nature and Food Quality. In addition, the Netherlands Environmental Assessment Agency occasionally supplies exploratory studies or effect assessments for third parties, such as political parties or private nature conservation societies. To do so, it needs the Minister's permission.

9. Knowledge-related questions that relate to the policy task(s) and are to be answered by the research findings:

The programme has contributed to the answers given by the Netherlands Environmental Assessment Agency (MNP) to questions which the Ministry of Agriculture had asked in its Framework Letter. The overall report will be produced by MNP. **The present report can thus be regarded as an annex to the overall MNP report to its commissioning clients, the Dutch Ministry of Housing, Spatial Planning and the Environment (VROM) and the Dutch Ministry of Agriculture, Nature and Food Quality (LNV).**

10. Proposed and achieved results or interim results for 2007:

The plan of action of the Nature Policy Assessment Task programme includes the direct contributions made to the task by the DLO research institutes. Just as in previous years, the basic research to supply information for the Nature Policy Assessment Task (knowledge development) was allocated a separate programme in 2007 (WOT-04-002).

The results of the programme are the products for the Nature Policy Assessment Task. The programme uses models, data and analyses supplied by other programmes (Basic Research) of the Dutch Ministry of Agriculture, Nature and Food Quality, and coordinates their delivery.

The 2007 action plan included the following components:

1. Statutory products, viz. the 2007 Nature Balance and Nature Compendium reports, and thematic assessments on the shift from conservation by land acquisition to countryside stewardship by land owners and on the evaluation of countryside stewardship schemes. In addition, the documentation for the 2006 assessments for the Birds and Habitat Directives and the Convention on Biological Diversity (CBD2010) has been completed.
2. Quick response tasks, including contributions to the Goals Achievement Monitoring instrument for the National Spatial Strategy.
3. Development and maintenance of consistency across the available instruments (information logistics, indicators, models, quality improvement).
4. Management, quality assurance, communication and support.

1.1 Producing the 2007 Nature Balance report

The tenth Nature Balance report was published in September 2007. The present programme contributed about 70% of its content. The contribution included an evaluation of Dutch nature conservation and landscape policy in general, in light of the latest ecological and social developments. In addition to these regular components, it included an analysis of the significance of wildlife in the public's perception, and of the relation between the Nature Balance and Environmental Balance reports.

1.2 Producing and updating the Nature Compendium

The 'Nature Compendium' website was further expanded and updated in 2007, and investments have been made to improve the public's awareness of the website. The Nature Compendium presents data obtained from a large number of agencies and is tested for statistical quality by Statistics Netherlands (CBS). The contributions to the Compendium by the present programme mostly relate to the Landscape, Ecosystems, Nature & Society and Nature Conservation Policy components. The effort required for this, including coordination, covers about 10% of the total project, excluding data collection.

1.3 Thematic Assessments

In addition to the assessment evaluating countryside stewardship schemes (*Evaluatie Regelingen Natuurbeheer*), published in May, an update (Part II) of the assessment of the shift from nature conservation by land acquisition to countryside stewardship by land owners (*Van Aankoop naar Beheer*) was published in August. The documentation for the 2006 thematic assessments (Birds and Habitat Directives and CBD2010) has been completed.

2 Quick Response Task and Integrated Studies

Under the statutory Nature Policy Assessment Task, the Minister of Agriculture can ask MNP to initiate ad hoc activities, while MNP can also offer unsolicited advice to the Ministry, or can contribute to integrated products of the assessment agency. In the course of 2007, recommendations were provided on quality assurance for the Dutch National Ecological Network, the increasingly cluttered Dutch landscape and the economic context of nature conservation and environmental policies. The recommendations were used by MNP to inform the relevant policy processes.

3. Development and maintenance of instruments

The 2002 MNP Information Map was updated and made more user-friendly by means of IT technology. In addition, the web-portals, explorers, indicators database and meta-data system were serviced. The collaborative 'Quality Assurance Drive' project has now also improved the quality of the models used at Wageningen University & Research Centre for MNP research, which had persistent flaws, and ensured that nearly all of them now meet the basic quality requirements. Model studies were used to provide ad hoc advice and for the thematic assessment of the shift from nature conservation by land acquisition to countryside stewardship by land owners. The coordination of data supply remains a matter of concern. It is not only hampered by fragmented data management and barriers to data availability, but the specific objectives of various agencies managing data often result in data recording structures that differ from those required for the MNP's objectives. This can only be solved through interdepartmental collaboration.

4. Management and communication

Coordination and governance issues are requiring a great deal of time and effort, due to the prevailing network structure (both within and beyond Wageningen UR) as well as the programme's coordinating tasks for the Basic Research programme (WOT-04-002).

Contributions to MNP products are being disseminated via MNP's communication channels. Scientific underpinning of contributions by the present programme is being offered in WOT Reports, Working Documents and Studies. In addition, the Ministry of Agriculture, Nature and Food Quality and other target groups are being kept informed by means of the Kennis Online website and the WOT newsletter *WOT's New*.

11. Knowledge transfer to target group and utilisation of knowledge by target group

The reported results are delivered to target groups in various ways. Working Documents ensure that fellow researchers within the organisation can build on previous findings. Policy target groups outside the organisation are informed through WOT products (Nature Balance documents, Nature Outlook documents, Thematic Assessments, ad hoc consultancy), while the scientific community is informed through WOT Reports and the public through WOT Studies. The regular requests for reprints indicate that the WOT research findings fulfil a need.

12. Collaboration between DLO research institutes involved in the programme and other institutes/organisations:

The programme involves collaboration with the Alterra research institute (80%) and the Agricultural Economics Research Institute (LEI) (20%). Collaboration with both institutes is characterised by an open atmosphere. The tasks are being allocated within the conditions determined by the WOT statute, using a demand-driven approach.

Collaboration with the Netherlands Environmental Assessment Agency was further intensified. In the course of 2007, much effort was invested in the relationships with agencies supplying data. Despite the fragmented data management systems, the relevant data, especially those from the National Service for the Implementation of Regulations and the Dept. of Rural Affairs, have become available for the MNP products in time. The newly established ecological data management authority (*Gegevensautoriteit Natuur*, GAN) appears set to play a positive role in achieving consistent data provision at the level of departments of the Ministry of Agriculture, Nature and Food Quality. The efforts to achieve this should also involve the new WOT programme for ecological information supply (*Informatievoorziening Natuur*) which is currently being set up, as well as permanent systems for data supply by Statistics Netherlands (CBS) and non-governmental data management organisations.

5.2 Project reports for WOT-04-006

Survey of WOT-04-006 projects

Project No.	Project name	Page
5230003-60	2007 Nature Balance report: general part (Alterra)	17
5230003-61	2007 Nature Balance report: Nature and Society	19
5230003-62	2007 Nature Balance report: Case studies	21
5230003-63	2007 Nature Balance report: Landscape	23
5230003-64	2007 Nature Balance report: nature conservation policy and National Rural Areas Investment Budget (ILG)	25
5230003-65	Preparing the 2008 Nature Balance report: Wetlands Map	27
5230003-67	Preparing the 2008 Nature balance report: water-related recreation	29
5230005-05 and LEI 20993	Nature Compendium website	31
5230005-06	Exploring opportunities for including CBD indicators in the Environmental and Nature Compendium website	33
5230006-11	Work on the 'Future of the Netherlands' project	35
5230006-12	Towards an indicator of functional agrobiodiversity	37
5230007-06	Secondments	39
5230007-07	Quick Response analysis of marine areas for Birds & Habitat Directives	41
5230009-31	Thematic Assessment of the Birds & Habitat Directives	43
5230010-06	Evaluating the 2010 biodiversity target for the Netherlands	45
5230011-11	Landscape and Rural Areas	47
5230012-20	Managing Knowledge about Nature for Governance and Society	49
5230012-21	Utilising the knowledge from MNP products / Nature Balance report for secondary school pupils	51
5230012-22	Organising a workshop on the future of administrative science at MNP	53
5230012-23	Environmental education in primary schools	55
5230014-11	Exploring the Future of the Netherlands. Landscape section	57
5230014-12	Spatial developments monitor: monitoring the achievement of objectives of the 2007 National Spatial Strategy	59
5230015-20	Completing the evaluation of countryside stewardship schemes	61
5230017-09	Knowledge management at MNP	63
5230018-05	A different view of nature	65
5230018-06	Background report on products for the 2007 Nature Policy Assessment Task	67
5230019-07	Quality assurance for models and databases	69
5230019-08 and 5230019-09	Sustainable Information Supply for MNP (DUIN)	71

5230020-12		Monitoring by the CVTO recreation survey	73
5230020-13		Exploring opportunities to develop a European version of a Dutch landscape preferences website	75
5230020-14 3236051400	and	Geological value in relation to intensive farming crops	77
5230020-15		WOT Study on monitoring	79
5230020-16		Contributing to MNP's role as EEA National Focal Point	81
5230020-17		Wildlife and landscape of European significance in the Netherlands	83
5230022-06		Programme Management for the Nature Policy Assessment Task	85
5233871-01		Managing SMART/SUMO	87
5234177-01		WOT Study on public support for nature conservation policy	89
LEI 20754		Information network on area management by the National Forestry Service (SBB)	91
LEI 20795		2007 Nature Balance report: developments in society	93
LEI 20796		Nature Balance report (LEI): General section	97
LEI 20856		Knowledge Management for Nature and Economics	99
LEI 20862		Cost-effectiveness of the National Ecological Network: 2007 Synthesis	101
LEI 20863 and 5230004-06		Thematic Assessment II, 2007	103
LEI 31109 and LEI 30874 and LEI 30993		BIN farm information database for agriculture and horticulture, 2007	107

2007 Nature Balance report: general part (Alterra)

Programme WOT-04-006
Project results in 2007

Project name	2007 Nature Balance report: general part (Alterra)
Project No.	5230003-60

Knowledge requirements of target group:

This subproject acts as an umbrella project. Half of the project involves general activities for the 2007 Nature Balance report (NB07) such as preparing tables, graphs and other figures, data gathering and assistance for substantive and copy editing.

The other half involves contributions by Alterra staff to the Nature subproject of the Nature Balance report. The research questions relating to this other half are included in the Nature subproject by Dirk-Jan van den Hoek, including the activities by the Alterra staff involved.

Objective of project:

The Nature Balance report offers an agenda of subjects that allow ministers and parliament to monitor progress in nature and landscape conservation policies, and take action if necessary, based on their political responsibility.

The target readership of the 2007 Nature Balance report primarily consists of the Minister of Agriculture, Nature and Food Quality, the other cabinet ministers and the Dutch parliament. In addition, NB07 is intended for the provincial authorities. Finally, NB07 is intended for policymakers, organisations involved in nature conservation policy and (via various media) interested members of the public.

The subproject aims to help staff at the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M) and the Alterra research institute offer logistical support and content to the nature conservation part of NB07.

Proposed and achieved research results and products:

2007 Nature Balance report, Netherlands Environmental Assessment Agency (MNP), assisted by Wageningen University & Research Centre (WUR)

2007 Nature Balance report: Nature and Society

Programme WOT-04-006	
Project results in 2007	
Project name	2007 Nature Balance report: Nature and Society
Project No.	5230003-61
<i>Knowledge requirements of target group:</i> The 2007 Nature Balance report (NB07) discusses social developments in relation to nature and the landscape. The present subproject produces the texts and background information on this topic.	
<i>Objective of project:</i> Contributing to the 2007 Nature Balance report.	
<i>Proposed and achieved research results and products:</i> Vreke, J., J.L.M. Donders, B.H.M. Elands, C.M. Goossen, F. Langers, R. de Niet & S. de Vries, Nature and landscape for people: background document to the 2007 Nature Balance report. (In Dutch) WOT Working Document No. 80, WOT N&M, Wageningen.	

2007 Nature Balance report: Case studies

Programme WOT-04-006
Project results in 2007

Project name	2007 Nature Balance report: Case studies
Project No.	5230003-62

Knowledge requirements of target group:

The research question addressed in the three case studies is about analysing the operation of the decision-making process that may lead to contentious spatial developments. What steps does the process involve, and what roles do policies, the legislative framework and instruments play in this process?

The following hypotheses are tested:

- The result of a decision-making process can be decisively influenced by the people involved in it.
- The eventual result of the assessment process depends on the way the process is organised and the diversity of views incorporated.
- The room for manoeuvre, or lack of it, offered by the relevant legislation or the instruments may decisively influence the decision-making process.

Objective of project:

The project aims to analyse three specific case studies to assess whether such contentious developments are taking place and to find out what characteristics of the decision-making process lead to potentially conflicting or unsustainable spatial developments. *What steps does the process involve, and what roles do policies, the legislative framework and instruments play in this process? What lessons can be learned from this?*

Proposed and achieved research results and products:

2007 Nature Balance report, Netherlands Environmental Assessment Agency (MNP), assisted by Wageningen University & Research Centre (WUR)

2007 Nature Balance report: Landscape

Programme WOT-04-006	
Project results in 2007	
Project name	2007 Nature Balance report: Landscape
Project No.	5230003-63
<i>Knowledge requirements of target group:</i> The Landscape chapter in the 2007 Nature balance report identifies developments in green areas (i.e. parks and conservation areas). It also describes how the landscape policy outlined in the National Spatial Strategy has been specified by the local authorities to whom landscape policy has recently been devolved.	
<i>Objective of project:</i> The national government has defined several objectives for landscape policy. It remains unclear, however, how these are being implemented 'in the field'. Does the practical implementation comply with policy goals, and what are the results like? The project aims to show ministers and members of parliament, as well as the decentralised authorities, what has actually happened at landscape level and how this fits in with the policy goals. Future projections show policymakers what developments can be expected in the short term (i.e. the next four years).	
<i>Proposed and achieved research results and products:</i> 2007 Nature Balance report, Netherlands Environmental Assessment Agency (MNP), assisted by Wageningen University & Research Centre (WUR)	

2007 Nature Balance report: nature conservation policy and National Rural Areas Investment Budget (ILG)

Programme WOT-04-006
Project results in 2007

Project name	2007 Nature Balance report: nature conservation policy and National Rural Areas Investment Budget (ILG)
Project No.	5230003-64

Knowledge requirements of target group:

What type of knowledge should be developed to meet the objective?

The project contributes to the policy chapter of the 2007 Nature Balance report by collecting information about policy goals at various government levels and the complexities of their implementation. In addition, it gathers knowledge about the consequences of the National Rural Areas Investment Budget (ILG) for nature conservation policy.

What specific questions need to be answered to answer the general knowledge-related question?

As regards the Policy chapter:

- What policy goals have been defined at various government levels?
- What complexities are being encountered in implementing the policy?

As regards the ILG:

- How does the ILG affect the implementation of nature conservation policy?
- How will the provincial authorities implement nature conservation policy in relation to the ILG?

Rate of implementation: Can and will the provincial authorities reallocate resources to speed up the implementation of certain tasks? What are the current expectations and possible consequences?

Objective of project:

What is this research project trying to achieve? What is its social and/or scientific relevance?

The objective is twofold:

1. Writing the Policy chapter in the Nature Balance report (landscape, wildlife and 'nature for people'¹).
2. Preliminary examination of the significance of the ILG for nature conservation policy, eventually resulting in a contribution (text) for the Nature Balance report and a WOt Report.

Proposed and achieved research results and products:

Kamphorst, D.A. & Selnes, T. A. (2007) ILG and nature conservation policy. An exploratory study of the significance of the Dutch National Rural Areas Investment Budget for nature conservation policy. (In Dutch) WOt Report No. 62

¹ This proposal mainly addresses the 'Nature Policy' component. The 'Landscape' and 'Nature for People' components will be supplied by other projects (see section 1.5) and will be incorporated in the Policy chapter.

Preparing for the 2008 Nature Balance report: Wetlands Map

Programme WOT-04-006
Project results in 2007

Project name	Preparing for the 2008 Nature Balance report: Wetlands Map
Project No.	5230003-65

<p><i>Knowledge requirements of target group:</i> The target group is in need of a general survey of the quality of aquatic habitats in the Netherlands.</p>
<p><i>Objective of project:</i> The project aims to integrate information on aquatic habitats from various sources and databases, and to present an overview of the quality of aquatic habitats in the Netherlands.</p>
<p><i>Proposed and achieved research results and products:</i> Background report for the Nature Balance report. Title and authors not yet decided on.</p>

Preparing the 2008 Nature balance report: water-related recreation

Programme WOT-04-006	
Project results in 2007	
Project name	Preparing the 2008 Nature balance report: water-related recreation
Project No.	5230003-67

<p><i>Knowledge requirements of target group:</i></p> <p>The target group needs information on the current volume of water-related recreation and the magnitude, quality and geographical distribution of supply and demand as regards recreational opportunities on, near and in water bodies, as well as on the effects of water-related recreation on efforts to meet the objectives of Natura 2000 and the Birds and Habitat Directives.</p>
<p><i>Objective of project:</i></p> <p>The project aims to analyse a number of recreational activities (which have not yet been selected) to assess:</p> <ul style="list-style-type: none">- the current volume of water-related recreation;- the magnitude, quality and geographic distribution of supply and demand as regards recreational opportunities on, near and in water bodies;- frictions between tourism/recreation and wildlife in the Natura 2000 areas.
<p><i>Proposed and achieved research results and products:</i></p> <p>Documented maps, tables, etc., which can be used for the 2008 Nature Balance.</p>

Nature Compendium website

Programme WOT-04-006
Project results in 2007

Project name	Nature Compendium website
Project No.	5230005-05 / LEI 20993

Knowledge requirements of target group:

Reliable and up-to-date figures on aspects of nature and the landscape, in accessible and readable form.

Objective of project:

The Environmental and Nature Compendium website is produced by the Netherlands Environmental Assessment Agency (MNP) with contributions from Wageningen University and Research Centre (through the Statutory Research Tasks Unit for Nature & the Environment WOT N&M). The project to produce WOT N&M's contribution aims to:

- update and extend the indicators, especially those relating to the Landscape as a theme and those relating to economics and nature conservation;
- produce a printed brochure to promote the Environmental and Nature Compendium website;
- contribute to improvements to the website.

Proposed and achieved research results and products:

- Various circumstances (including prioritising) have meant that only 4 updated or new indicators were produced during 2007. On 31 December 2007, draft texts with corresponding figures and tables were available for about 25 updated or newly developed indicators. These indicators are expected to be placed on the website in updated form in the first half of 2008.
- A lavishly illustrated brochure describing some 20 indicators has been published. This brochure has been widely distributed, for instance among students and staff at Wageningen University and Research Centre.
- A fully renovated website has been launched.

Exploring opportunities for including CBD indicators in the Environmental and Nature Compendium website

Programme WOT-04-006	
Project results in 2007	
Project name	Exploring opportunities for including CBD indicators in the Environmental and Nature Compendium website
Project No.	5230005-06

Knowledge requirements of target group:

There is a need for information to show whether, and if so when, the indicators of the Convention on Biological Diversity (CBD) could be included in the Environmental and Nature Compendium website.

Objective of project:

Assessing the feasibility (in terms of content, logistics and funding) of including the CBD indicators in the Environmental and Nature Compendium website.

Proposed and achieved research results and products:

The project originally intended to produce a report discussing the feasibility of including the CBD indicators as outlined above. After further consultations with the client, however, the project's aims were restricted to some extent. It was decided to limit the project to a survey of the current state of affairs as regards the CBD indicators by interviewing various experts involved. The results have been recorded in factsheets. The time thus saved has been used for further contributions to the brochure on the state of affairs regarding the CBD indicators.

Work on the 'Future of the Netherlands' project

Programme WOT-04-006

Project results in 2007

Project name	Work on the 'Future of the Netherlands' project
Project No.	5230006-11

Knowledge requirements of target group:

One of the perspectives in the 'Future of the Netherlands' study is that of 'Robust Nature', which requires information on opportunities for and threats to nature and ecological quality in the Netherlands. This exploratory study is expected to focus on internationally important species and habitats and to cover the period up to 2040.

Objective of project:

The project aims to contribute to the development of the 'Robust Nature' perspective in the 'Future of the Netherlands' study and to evaluate this perspective using an available method to assess spatial conditions for sustainable conservation of biodiversity in terms of target species.

Proposed and achieved research results and products:

M. van Veen, A. van Hinsberg, M. van Esbroek, J. Clement, R. Reijnen, R. Pouwels & R. van Oostenbrugge & A Bouwman. (In prep.) Towards a 'Robust Nature' perspective for the 'Future of the Netherlands' study. (In Dutch) Background report for the 'Future of the Netherlands' study, MNP, Bilthoven. To be published in 2008.

Towards an indicator of functional agrobiodiversity

Programme WOT-04-006	
Project results in 2007	
Project name	Towards an indicator of functional agrobiodiversity
Project No.	5230006-12
<i>Knowledge requirements of target group:</i> The target group wishes to be informed about: <ul style="list-style-type: none">- the policy goal of the indicator for functional agrobiodiversity requested in the 2007 Framework Letter;- the definition of functional agrobiodiversity;- what is to be assessed by the indicator.	
<i>Objective of project:</i> In their 2007 Framework Letter, the Ministry of Agriculture, Nature and Food Quality and the Ministry for Housing, Spatial Planning and the Environment request the development of an indicator of functional agrobiodiversity. In particular, they wish to be informed about the progress and results of the sustainable use of soil biodiversity and aboveground biodiversity in agriculture in relation to the concept of 'interlacing green and blue networks' (i.e. networks of green and water-related elements in the landscape). The request to develop such an indicator of functional agrobiodiversity ensues from the Convention on Biological Diversity (CBD, 2010). The objective of this Convention is to remove, at source, the causes of the current severe decline of biodiversity as such and of the value of its components from an ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic point of view. To achieve this, it is considered essential to develop scientific, technical and institutional instruments to gather the basic knowledge needed to develop and implement suitable policy measures to maintain biodiversity. The national government regards the development of an indicator of functional agrobiodiversity as one aspect of this objective.	
<i>Proposed and achieved research results and products:</i> <i>Bosch van den, F. J. P.</i> Functional agrobiodiversity. An overview of the value, necessity and feasibility of developing an indicator as requested by the Netherlands Environmental Assessment Agency. WOt Working Document No. 73.	

Secondments

Programme WOT-04-006

Project results in 2007

Project name	Secondments
Project No.	5230007-06

Knowledge requirements of target group:

The Netherlands Environmental Assessment Agency (MNP) needs to apply the ecological and environmental knowledge that is available or is being developed at Wageningen UR.

Objective of project:

Secondment of experts of Wageningen UR to the MNP, in order to promote the application of Wageningen UR knowledge in MNP products.

Proposed and achieved research results and products:

Optimised utilisation of Wageningen UR knowledge in MNP products.

Quick Response analysis of marine areas for Birds & Habitat Directives

Programme WOT-04-006	
Project results in 2007	
Project name	Quick Response analysis of marine areas for Birds & Habitat Directives
Project No.	5230007-07
<i>Knowledge requirements of target group:</i> Analysis of marine areas for the EU's Birds and Habitat Directives	
<i>Objective of project:</i> Examining the current situation in marine areas with regard to the Birds and Habitat Directives.	
<i>Proposed and achieved research results and products:</i> Examining the current situation in marine areas with regard to the Birds and Habitat Directives (ongoing project).	

Thematic Assessment of the Birds & Habitat Directives

Programme WOT-04-006	
Project results in 2007	
Project name	Thematic Assessment of the Birds & Habitat Directives
Project No.	5230009-31
<p>Knowledge requirements of target group: This study was initiated in response to the question asked by the Ministry of Agriculture, Nature and Food Quality in its Framework Letter to the Netherlands Environmental Assessment Agency (MNP) to assess how the protection of sites registered under the Birds and Habitat Directives is working out in practice, as regards both ecological objectives and socio-economic effects on the areas concerned.</p>	
<p>Objective of project: The project aims to outline the prospects for meeting the targets of the Birds and Habitat Directives in the Netherlands. The report identifies the policy efforts required to meet the ecological targets of these directives. The project also looks, however, at all those people who are involved or have to become involved in implementing these directives, and at current and future trends in Dutch society.</p>	
<p>Proposed and achieved research results and products: Summary report drafted in collaboration with MNP: M.P. van Veen & I.M. Bouwma. Prospects for the Birds & Habitat Directives in the Netherlands. (In Dutch) 2007. MNP, Bilthoven.</p> <p>Subsidiary reports: Bosch F. van den (2007). Support for the Natura 2000 areas policy among relevant regional stakeholders. (In Dutch) WOT Working Document No. 55, WOT N&M, Wageningen.</p> <p>Bouwma, I.M. (in prep.). Quicksan on Natura 2000 and the 'Nature Management' countryside stewardship scheme. (In Dutch) WOT Working Document No. 58, WOT N&M, Wageningen.</p> <p>Broekmeyer M., Schouwenberg E., Sanders M. & Pouwels R. (2007). Synergy between the National Ecological Network and the Natura 2000 areas. How is area management controlled? (In Dutch) WOT Working Document No. 54, WOT N&M, Wageningen.</p> <p>Pouwels R., Reijnen R., Adrichem M. van & Kuipers H. (2007). Spatial conditions for species falling under the Birds and Habitat Directives. (In Dutch) WOT Working Document No. 57. WOT N&M Wageningen.</p> <p>Jong A. de, Wijk M. van & I.M Bouwma (2007). Management costs for Natura 2000 sites. (In Dutch). WOT Working Document No. 56, WOT N&M, Wageningen.</p> <p>Schouwenberg, E. (2007). Current and future nitrogen loads on Natura 2000 sites. (In Dutch) WOT Working Document No. 59, WOT N&M, Wageningen.</p> <p>Two more articles about the research are expected to be written in 2008.</p>	

Evaluating the 2010 biodiversity target for the Netherlands

Programme WOT-04-006	
Project results in 2007	
Project name	Evaluating the 2010 biodiversity target for the Netherlands
Project No.	5230010-06
<i>Knowledge requirements of target group:</i> Examining the state of affairs and developments with regard to the various indicators for the Convention on Biological Diversity (CBD-2010).	
<i>Objective of project:</i> The results of the present evaluation can function in the policymaking process in two ways: <ol style="list-style-type: none">1. Supporting the Dutch policies on nature conservation, biodiversity, the environment, as well as sectoral policies, as regards monitoring the efforts and achievements.2. Setting an example and stimulating other countries to start working on the target and the indicators. This is in line with the Dutch policy plan on international biodiversity (BBI), which mentions indicators as an action item.	
<i>Proposed and achieved research results and products:</i> The background reports on the various indicators have been completed and published.	

Landscape and Rural Areas

Programme WOT-04-006	
Project results in 2007	
Project name	Landscape and Rural Areas
Project No.	5230011-11
<p>Knowledge requirements of target group: The target group requires knowledge about the value (<i>in general</i>) of the Dutch landscape and about developments taking place in the landscape and their causes.</p>	
<p>Objective of project: The project aims to paint a coherent picture of the value of the Dutch landscape and to ensure that basic research reveals the components that can be used to assess this value.</p> <p>This can be achieved by:</p> <ul style="list-style-type: none"> ▪ formulating knowledge-related questions for the 2008 Basic Research programme; ▪ coordinating and evaluating the 2007 Basic Research programme; ▪ ensuring that knowledge is disseminated in publications by the Netherlands Environmental Assessment Agency (MNP); ▪ preparing a synthesis study on the significance of the Dutch landscape. 	
<p>Proposed and achieved research results and products:</p> <ul style="list-style-type: none"> - as regards the coordination of basic research: <ul style="list-style-type: none"> - approved project plans for the 2007 Basic Research programme; - reports or draft reports on the basic research carried out in 2007, which were discussed with MNP; - contributions to the 2008 WOT action programme, including proposals and pre-proposals for research to be done in 2008; - contributions to the meetings of the Programme Committee for the Nature Policy Assessment Task. - as regards knowledge dissemination: <ul style="list-style-type: none"> - article published in the <i>Landschap</i> journal on the role of agriculture as a driving force for 'National Landscapes'; - contributions to lecture by, and preparations for an interview with, the managing director of MNP; - contribution to the preparations for the 2008 Nature Balance report; - organising a meeting for the presentation of the WOT Study entitled 'A new look at Nature' (In Dutch). <p>a WOT Working Document presenting an overview of the results of the WOT landscape study;</p> <ul style="list-style-type: none"> - an annotated list of contents for the WOT Study. 	

Managing Knowledge about Nature for Governance and Society

Programme WOT-04-006
Project results in 2007

Project name	Managing Knowledge about Nature for Governance and Society
Project No.	5230012-20

Knowledge requirements of target group:

The main activities in the knowledge management project include:

1. Managing the subprogramme on knowledge about Nature for Governance
2. Development of a vision and formulating research questions for 2008
3. Coordinating basic research
4. Knowledge dissemination

Most of the activities continue throughout the year.

Objective of project:

Basic research is needed to allow the Netherlands Environmental Assessment Agency (MNP) to report on governance and society in relation to the state of nature and landscape conservation in its products, such as the Nature Balance and Nature Outlook reports and the Thematic Assessments. Objective: The activities included in the present project contribute to the MNP's knowledge management effort and to MNP products.

Proposed and achieved research results and products:

1. Subprogramme management: start-up documents for the 2008 research programma.
2. Development of a vision and formulating research questions, coordinating a feedback group on Nature in Governance and Society, development of a multi-year research programme and of a document in which research questions for 2008 are developed into project proposals.
3. Coordinating basic research: Project proposals and research reports.
4. Knowledge dissemination: Debates, interactive knowledge transfer (e.g. 'Knowledge Fair', mini-symposium), publications (e.g.: WOT Study on policy evaluation).

Utilising the knowledge from MNP products / Nature Balance report for secondary school pupils

Programme WOT-04-006	
Project results in 2007	
Project name	Utilising the knowledge from MNP products / Nature Balance report for secondary school pupils
Project No.	5230012-21

Knowledge requirements of target group:

- Applying expertise
- Consultation
- Knowledge-related questions on environmental education and related policies

Objective of project:

Dissemination of knowledge from Nature Balance reports and other products of the Netherlands Environmental Assessment Agency (MNP).

Proposed and achieved research results and products:

A number of hours were spent on the project to promote utilisation of knowledge by a wider audience:

1. Nature Balance report for secondary school students:
 - a. Consultations with the Kennisnet educational support organisation and the Stichting Veldwerk Nederland, a foundation promoting ecological field studies by various groups in society.
 - b. Writing a project plan.
 - c. Revising the project proposal for the RIGO policy research agency.
 - d. Revising the project proposal for RDN.
2. Knowledge exchange meeting on 'Young People, Nature, Nutrition and health'.
3. Quick response: One-page reply to question by Klaas van Egmond on the funding of environmental education.
4. Contribution to *Groene Toekomst* (Green Future) website.
5. Contribution to Powerpoint presentation on public support, requested by Klaas van Egmond: Symposium in Utrecht on 28 March.
6. Answering journalists' questions on environmental education policy.
7. Reviewing and commenting on the environmental education section of the 2007 Nature Balance report.
8. Book by Louv (*Laatste kind in het bos* – last child in the woods): editing footnotes.
9. Recommendations to Ministry of Agriculture, Nature and Food Quality and Ministry of Housing, Spatial Planning and the Environment for new policy document on environmental education: SMART goals and policy evaluation.
10. *Natuurwijs* project by National Forestry Service (SBB): project proposal, consultations with client and list of questions.
11. Fifth UNECE conference: commenting on pilot assessment and analysis.
12. Sixth UNECE conference: preparations.

Organising a workshop on the future of administrative science at MNP

Programme WOT-04-006	
Project results in 2007	
Project name	Organising a workshop on the future of administrative science at MNP
Project No.	5230012-22
<p><i>Knowledge requirements of target group:</i> The following main research questions are addressed: Why do the answers provided by administrative scientists to questions asked by the Netherlands Environmental Assessment Agency (MNP) fail (or often fail) to meet the MNP's expectations? Can the demand by MNP and the supply from Alterra be matched, and if so how?</p>	
<p><i>Objective of project:</i> Improving the match between the demand for administrative science information by MNP and the supply from administrative scientists at Alterra.</p>	
<p><i>Proposed and achieved research results and products:</i> <i>Bosch van den, F. J. P.</i> A tall story. On the role of administrative science at MNP. (In Dutch) WOt Working Document No. 73.</p>	

Environmental education in primary schools

Programme WOT-04-006

Project results in 2007

Project name	Environmental education in primary schools
Project No.	5230012-23

Knowledge requirements of target group:

To what extent is the continuity of support for environmental education (EE) by local and regional EE centres being threatened by municipal budget cutbacks and what consequences can this have for EE at primary schools?

Answering this question requires research into regulations by public authorities to support EE in primary schools, as well as the way this support is currently functioning and the role of the EE centres in the process.

Objective of project:

Examining the organisation of EE facilitation by provincial and municipal authorities, the role of EE centres, the severity of threats to the continued existence of these centres and the consequences for the support for EE at primary schools.

Proposed and achieved research results and products:

An overview of differences between provincial and municipal authorities as regards the way they support EE at primary schools, the roles of local and regional EE centres in this respect and the consequences of expected changes in the support for these centres.

Draft report:

Sollart, K.M. & J.Vreke: IVN consultancy and EE at primary schools (provisional title)

Exploring the Future of the Netherlands. Landscape section

Programme WOT-04-006

Project results in 2007

Project name	Exploring the Future of the Netherlands. Landscape section
Project No.	5230014-11

Knowledge requirements of target group:

The project tries to identify the potential consequences for landscape quality of various developments in the period up to 2040. These developments include a trend variant and 6 different perspectives that are being developed within the framework of the 'Exploring the Future of the Netherlands' project (based on the study by WLO, the association of Dutch landscape ecologists). The consequences for the Dutch landscape are being assessed by means of an existing model (KELK), a new version of which was developed for the project in 2006 .

Objective of project:

The project aims to explore the consequences of possible future land-use changes for the Dutch landscape, in order to identify policymaking options to address undesirable developments.

Proposed and achieved research results and products:

The project is gathering the information yielded by landscape research, operationalising this knowledge and offering it as input to the 'Exploring the Future of the Netherlands' study.

Specific result: A CD-ROM providing:

- The Osiris project (including data), in which the MDT trend variant and 6 different policy options were assessed in terms of their consequences for various 'core qualities' of the landscape, including those for culture, open landscapes, amenity value and recreational capacity.
- Excel tables showing the results for the Netherlands as a whole, as well as for each 'National Landscape' (core qualities), for each province (amenity value) and recreational capacity for 50 large municipalities.
- An internal memorandum presenting the results in the format requested by the client.

An internal memorandum commenting on the mode of operation.

Spatial developments monitor: monitoring the achievement of objectives of the 2007 National Spatial Strategy

Programme WOT-04-006
Project results in 2007

Project name	Spatial developments monitor: monitoring the achievement of objectives of the 2007 National Spatial Strategy
Project No.	5230014-12

<p>Knowledge requirements of target group: What physical characteristics determine the differences in public appreciation between various areas?</p>
<p>Objective of project: Examining how citizens appreciate the spatial quality of the Dutch landscape and how their judgement is influenced by the physical characteristics of the landscape.</p>
<p>Proposed and achieved research results and products: MNP (2007) <i>Monitoring Amenity Value for the 2006 National Spatial Strategy: Baseline assessment on landscape and green spaces in and around towns and cities.</i> (In Dutch) Netherlands Environmental Assessment Agency, Bilthoven. MNP Publication No. 50073001. N.Y. van der Wulp (in prep.) <i>Monitoring Amenity Value for the 2006 National Spatial Strategy: Baseline assessment of amenity values of areas.</i> (In Dutch) Alterra, Wageningen.</p>

Completing the evaluation of countryside stewardship schemes

Programme WOT-04-006	
Project results in 2007	
Project name	Completing the evaluation of countryside stewardship schemes
Project No.	5230015-20

Knowledge requirements of target group:

In its 2006 Framework Letter, the Ministry of Agriculture, Nature and Food Quality (LNV) asked the Netherlands Environmental Assessment Agency (MNP) to implement an ecological evaluation in 2006, as the Minister had promised parliament to present them with such an evaluation of the Dutch 'Nature Management' (*Programma Beheer*) countryside stewardship programme in 2007.

Objective of project:

Completing the project evaluating Dutch countryside stewardship schemes (*Programma Beheer* and *SBB*).

Proposed and achieved research results and products:

MNP 2007, Evaluation of countryside stewardship schemes: 'Nature Management Programme' and National Forestry Service. (In Dutch)

De Knegt, B., H.W.B. Bredenoord, J. Wiertz & M.E. Sanders 2006. Monitoring data for nature management in 2005. (In Dutch) WOT Working Document No. 22.

Background reports:

- (1) Field studies of grasslands (In Dutch) (Melman et al.) (In press)
- (2) Landscape (In Dutch) (Schotman et al.) (In prep.)
- (3) Background report on policy achievements (In Dutch) (In prep.)
- (4) Background report on questionnaire survey among countryside stewardship groups. (In Dutch) (In press)

Knowledge management at MNP

Programme WOT-04-006
Project results in 2007

Project name	Knowledge management at MNP
Project No.	5230017-09

Knowledge requirements of target group:

Contributing to the action plan on Basic Research for the 2008 Nature Policy Assessment Task.

Objective of project:

Preparations for the Programme of Activities, especially the WOT-04-002 programme of Basic Research for the Nature Policy Assessment Task, requires the use of expertise outside the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M) as regards water, biodiversity and European environmental and nature conservation policies.

Proposed and achieved research results and products:

Hinssen, P.J.W., 2007. 2008 Plan of Activities. Statutory Research Tasks Unit for Nature & the Environment (WOT-04). Nature Policy Assessment Task. WOT Working Document No. 78, WOT N&M Wageningen.

A different view of nature

Programme WOT-04-006

Project results in 2007

Project name	A different view of nature
Project No.	5230018-05

Knowledge requirements of target group:

This project does not answer any specific research or knowledge-related questions. Instead, it uses the findings of research into the perception of Dutch wildlife by ethnic minorities and young people to summarise and discuss related aspects (based on scientific research). It adds to this the opinions of guest authors deemed to have relevant opinions on the subject. This is presented in a form that is accessible to policymakers and other parties involved.

Objective of project:

The project aims to make the results of the above studies and other relevant research accessible to policymakers and relevant groups in society. In addition, it proposes solutions to the problems thus identified, from a range of perspectives.

Results and products achieved:

Buijs, A.E. M. Custers & F. Langers: A different view of nature – WOt Study No. 5 (2007)

Background report on products for the 2007 Nature Policy Assessment Task

Programme WOT-04-006
Project results in 2007

Project name	Background report on products for the 2007 Nature Policy Assessment Task
Project No.	5230018-06

Knowledge requirements of target group:

The Dutch government is in need of knowledge on nature, landscape and the environment in their administrative, economic and social contexts. The Statutory Research Tasks Unit for Nature & the Environment (WOT N&M) supplies this information in particular to the Ministry of Agriculture, Nature and Food Quality and the Netherlands Environmental Assessment Agency (MNP). The present project plays a major part in this process.

Objective of project:

The project aims to produce background publications for products relating to the MNP's Nature Policy Assessment Task. These include WOT Reports and WOT Working Documents.

Proposed and achieved research results and products:

The following numbers of publications were produced in 2007:

WOT Reports: 10

WOT Working Documents: 20

Quality assurance for models and databases

Programme WOT-04-006
Project results in 2007

Project name	Quality assurance for models and databases
Project No.	5230019-07

Knowledge requirements of target group:

The target group wants to know what databases and models require quality assurance and at what level of quality.

Objective of project:

The project aims to achieve or maintain verifiable quality for the entire set of instruments (model and databases) used or managed by the Netherlands Environmental Assessment Agency (WOT N&M). Close coordination with the Netherlands Environmental Assessment Agency (MNP) is required for those models and databases that are important for MNP. This is one of the issues that need to be addressed in the follow-up to the Quality Assurance Drive (KwaliteitsSlag) project.

The Quality Assurance Drive project (2004 – 2006) has led to considerable improvements in the quality of those models and databases used at Wageningen University and Research Centre that are important to MNP. It is important to maintain this basic quality level and to extend it to the entire set of instruments (models and databases) used or managed by WOT N&M.

Proposed and achieved research results and products:

Completion of Quality Assurance Drive project by means of audits of a number of models and databases. By the end of 2007, 11 models or databases had achieved the 'A' basic quality status. The other 9 will be audited in the early months of 2008.

Assisting the new strategy group, the successor of the Quality Assurance Drive steering group. Survey of models and databases being used or managed by WOT N&M, including quality status and proposals for quality assurance. The new strategy group started work in December 2007 and will initiate new projects in 2008.

Verifiable quality assurance for models and databases being used or managed by WOT N&M. This should ensure the quality level of much of the research by the Statutory Research Tasks Unit for Nature & the Environment. This was achieved for 11 of the 20 models or databases (see above).

Sustainable Information Supply for MNP (DUIN)

Programme WOT-04-006
Project results in 2007

Project name	Sustainable Information Supply for MNP (DUIN)
Project No.	5230019-08 and 5230019-09

Knowledge requirements of target group:

The main knowledge-related research question addressed in this project is how to make better and more efficient use of the information, knowledge and expertise available at Wageningen University and Research Centre and the Netherlands Environmental Assessment Agency (MNP) to serve the Environmental and Nature Policy Assessment Tasks.

Objective of project:

The MNP's policy assessments tasks can only be fulfilled if a sustainable supply of information is available. It is not enough to install technical facilities to link the various locations, organisations, data suppliers and information systems. At least as important is sound organisation and communication regarding these systems. This requires a robust underlying infrastructure that allows unequivocal communication, both internally (i.e. between offices, organisations and information systems) and externally (i.e. with data suppliers).

The project aims to organise the joint data supply for the Environmental and Nature Policy Assessment Tasks, and to improve communications about this data supply.

Proposed and achieved research results and products:

Strategic:

- A website presenting knowledge and an information map on nature conservation, the environment and spatial planning.
- A poster presenting knowledge and an information map on nature conservation, the environment and spatial planning.
- Masterclasses on uses and limitations of essential databases.

Operational:

- DUIN catalogue showing, for each 2007 MNP product, its relevance (see Annex), databases and a portal to allow access to the catalogue via Intranet and Internet.
- All newly acquired datasets have been included in one of the two geodatabases (at MNP or Wageningen UR).

The DUIN data catalogue offers all MNP researchers easy access to an overview of available databases, which can be easily searched. Researchers at both Wageningen UR and MNP Bilthoven can use their own infrastructure (GeoDesk Portal and MNP Dataportal, respectively) to access the DUIN catalogue.

Monitoring by the CVTO recreation survey

Programme WOT-04-006	
Project results in 2007	
Project name	Monitoring by the CVTO recreation survey
Project No.	5230020-12
Knowledge requirements of target group: The project aims to examine the use of parks and wildlife areas by recreational visitors.	
Objective of project: The results of the project should enable the Netherlands Environmental Assessment Agency (MNP) to assess any changes in leisure behaviour among Dutch citizens and the effect of such changes on the use of parks and wildlife areas. The use, or lack of use, of parks and wildlife areas is regarded as an important indicator of the public support for nature conservation and habitat development.	
Proposed and achieved research results and products: The MNP wants to know how and by whom Dutch forests, wildlife areas, rural areas and parks are being used. In addition, MNP wants to know whether any changes in leisure behaviour are to be expected over the next few years, which could influence the use of parks, wildlife areas etc. The tardy delivery of the data meant that no secondary analysis could be done in 2007, and no report could be prepared. This will now be done in the early months of 2008. A meeting was organised in 2007 to draw up an analysis plan.	

Exploring opportunities to develop a European version of a Dutch landscape preferences website

Programme WOT-04-006	
Project results in 2007	
Project name	Exploring opportunities to develop a European version of a Dutch landscape preferences website
Project No.	5230020-13

Knowledge requirements of target group:

The Dutch website *daarmoetikzijn* can be used to gauge the public's preferences for certain landscape types. Would it be possible to develop a European version of this website to identify landscape preferences among European citizens?

Objective of project:

The project aims to assess the opportunities to develop a web-based questionnaire which could eventually, after conversion into an actual website, be used to survey the preferences of European citizens for landscape types. A prototype of such a site could be used to get other parties interested in a project to actually build such a website. This would allow the prototype to be expanded into a fully functional, attractive website that other parties would want to include in their own Internet environment. This would increase the chances of large-scale response, thus providing the client with a unique European database of landscape preferences, which could be used for various spatial analyses.

Proposed and achieved research results and products:

The project should result in a report on the exploration of opportunities for developing a European version of the Dutch website on landscape preferences.

In addition to answers to the above questions, the project is to deliver the following products:

- An English version of the *daarmoetikzijn* website.
- An English demo version of a European landscape preference website analogous to the Dutch *daarmoetikzijn* site, based on a number of easily manageable landscape features.

Geological value in relation to intensive farming crops

Programme WOT-04-006	
Project results in 2007	
Project name	Geological value in relation to intensive farming crops
Project No.	5230020-14 and 3236051400
Knowledge requirements of target group: Small-scale relief elements and undisturbed soils, which are core qualities of the Dutch landscape, are in danger of gradually disappearing. The question is to what extent intensive farming crops, like tree nurseries, contribute to this process of landscape levelling. The project aims to assess: <ul style="list-style-type: none">• the prevailing types of tillage, tree removal and excavation activities;• the crops for which the above activities are being applied;• the types of geological values that are vulnerable to particular types of crop production.	
Objective of project: The project aims to describe the effects of tillage activities used in tree nurseries on soil and relief, and the consequences of these activities for the geological values of the landscape.	
Proposed and achieved research results and products: The research results have been reported to the Netherlands Environmental Assessment Agency (MNP) in an internal memorandum (Maas, G.J. & H. van Reuler, 2007. <i>Tree nurseries in the Netherlands</i> . (In Dutch)). The memorandum describes the tree nurseries sector, the tillage methods being used for each type of crop and the effect of these tillage methods on soil and landscape relief. The effects of these crops on the geological values of eight Dutch landscape types have been collected in a table.	

WOT Study on monitoring

Programme WOT-04-006
Project results in 2007

Project name	WOT Study on monitoring
Project No.	5230020-15

Knowledge requirements of target group:

What types of information and monitoring can be distinguished? What classification can be easily used by policymakers in the national and provincial governments and the regional water boards? What practical examples can be used to clarify the various forms of monitoring? How can the position of monitoring within the decision-making processes by various authorities best be defined?

Objective of project:

The state of the natural environment is being monitored in order to supply policymakers and politicians with information they can use to make decisions, and in order to help researchers understand the processes in the natural environment. Monitoring programmes are elements in decision-making processes by public authorities and researchers. Since the quality of their decisions is partly determined by the quality of the information produced by monitoring programmes, it is very important to understand this relationship. There is as yet no concise and accessible overview of types of monitoring for the natural environment, nor a clear description of the way to develop a monitoring schedule or a clear discussion of the relationship between monitoring and administrative processes. The present WOT study aims to offer policymakers working in national or provincial governments and regional water boards an overview of the various purposes and varieties of monitoring systems for the natural environment, as well as ways to develop monitoring schedules and the position of monitoring within decision-making processes by public authorities. This overview should help them in taking decisions about monitoring and contribute to a careful preparation of monitoring plans.

Proposed and achieved research results and products:

The product will be a WOt Study. Its presentation (in 2008) will possibly be accompanied by a short seminar.

Contributing to MNP's role as EEA National Focal Point

Programme WOT-04-006	
Project results in 2007	
Project name	Contributing to MNP's role as EEA National Focal Point
Project No.	5230020-16
<p>Knowledge requirements of target group: Various experts can be consulted, depending on the documents sent by EEA.</p>	
<p>Objective of project: Reviewing and commenting on EEA documents to contribute to the role of the Netherlands Environmental Assessment Agency (MNP) as a National Focal point for EEA.</p>	
<p>Proposed and achieved research results and products: Professional implementation of MNP's role as EEA National Focal point. Coordination of requests for advice, specific recommendations provided for:</p> <ul style="list-style-type: none"> • Meeting of the Agriculture EIONET Group at the EEA on 23 January 2008 • European forests - ecosystem conditions and sustainable use • Soil Country Analysis for the Netherlands 	

Wildlife and landscape of European significance in the Netherlands

Programme WOT-04-006
Project results in 2007

Project name	Wildlife and landscape of European significance in the Netherlands
Project No.	5230020-17

<p><i>Knowledge requirements of target group:</i> The project involves compiling a 'WOT Study' document discussing the European significance of wildlife in the Netherlands, at species, ecosystem and landscape level.</p>
<p><i>Objective of project:</i> Many Dutch people assume that wildlife in the Netherlands is of little or no significance for Europe as a whole; the present study tries to refute this notion. The ecological value of Dutch natural areas is definitely significant, even at European level.</p>
<p><i>Proposed and achieved research results and products:</i> The results of the study will be reported in a WOT Study. Stage 1 of the project has produced a draft version.</p>

Programme management for the Nature Policy Assessment Task

Programme WOT-04-006
Project results in 2007

Project name	Programme management for the Nature Policy Assessment Task
Project No.	5230022-06

<p><i>Knowledge requirements of target group:</i> Effective and efficient use of resources and implementation of the programme for the Statutory Research Tasks Unit for Nature & the Environment.</p>
<p><i>Objective of project:</i> Effective and efficient use of resources and implementation of the programme for the Statutory Research Tasks Unit for Nature & the Environment.</p>
<p><i>Proposed and achieved research results and products:</i> Effective and efficient use of resources and implementation of the programme for the Statutory Research Tasks Unit for Nature & the Environment.</p> <ul style="list-style-type: none"> • 2008 Programme of Activities • Annual reports for 2006

Managing SMART/SUMO

Programme WOT-04-006

Project results in 2007

Project name	Managing SMART/SUMO
Project No.	5233871-01

Knowledge requirements of target group:

SMART2/SUMO2 is a component of the Nature Planner system of models. It is highly important to thoroughly service these models and assist their users.

Objective of project:

Maintaining the quality level of the models linked to SMART2.

Proposed and achieved research results and products:

New updates have been supplied to the Netherlands Environmental Assessment Agency (MNP) and the technical documentation has been revised.

Public involvement with nature conservation and support for nature conservation policy

Programme WOT-04-006	
Project results in 2007	
Project name	Public involvement with nature conservation and support for nature conservation policy
Project No.	5234177-01
<p><i>Knowledge requirements of target group:</i> There is a need to integrate scientific knowledge about citizens' participation in, support for and involvement with nature conservation, and make this knowledge accessible to a wider audience.</p>	
<p><i>Objective of project:</i> Background: getting the public involved in nature conservation policy, stimulating involvement and sense of responsibility among citizens. Objective: making the results of recent relevant research, some of it commissioned by the Statutory Research Tasks Unit for Nature & the Environment, accessible to policymakers and stakeholders. In addition, the project aims to identify dilemmas and policy opportunities. Approach: The project is to yield a WOT Study, with some chapters explaining empirical studies to a non-specialist readership, while other chapters discuss theory development and theoretical reflection.</p>	
<p><i>Proposed and achieved research results and products:</i> The aim is to produce a WOT Study consisting of a number of chapters. In addition, the team will organise a symposium on this subject in 2008, at which the Study will be presented.</p>	

Information network on area management by the National Forestry Service (SBB)

Programme WOT-04-006
Project results in 2007

Project name	Information network on area management by the National Forestry Service (SBB)
Project No.	LEI 20754

<p><i>Knowledge requirements of target group:</i> Regular information on the costs of managing forests and natural areas in the Netherlands.</p>
<p><i>Objective of project:</i> Accessing and analysing the administrative data kept by the Dutch National Forestry Service (SBB), in order to regularly derive data on relevant management costs (and revenues) for the purpose of the information network on area management.</p>
<p><i>Proposed and achieved research results and products:</i> The SBB administrative system has proved to be highly detailed and complex, involving budget holders at a wide range of levels. In addition, SBB has collaborated with the Natuurmonumenten conservation society and some of the Provinciale Landschappen conservation societies in 2007 to revise the structure of its administrative system (in the project entitled <i>Doelentaa</i>). As a result, the revised SBB administrative data have to be reanalysed to secure their inclusion in the Information network on Area Management in 2008.</p>

2007 Nature Balance report: developments in society

Programme WOT-04-006	
Project results in 2007	
Project name	2007 Nature Balance report: developments in society
Project No.	LEI 20795

Knowledge requirements of target group:

1. Developments in Dutch society
 - What are the main developments in the context, corresponding to those mentioned in the Environmental Balance report? (Relevant developments include changes in land-use in the Netherlands, demographic changes in terms of the composition of the population; what groups stand out and what trends can be identified?)
 - How can the Nature Balance report tie in with the monitoring system for the National Spatial Strategy? What can be learned from the so-called '*Nieuwe Kaart van Nederland*' (new map of the Netherlands), a database presenting all planned new construction activities in the Netherlands for housing, industry, nature conservation, recreation and infrastructure for the 2010-2030 period?
 - What macro-economic prospects can be identified?
 - Is there a relation between these prospects and developments in wildlife and the landscape?
 - What conclusions can be drawn about spatial developments in the Netherlands compared to those elsewhere in Europe? How does the pressure on available space in the Netherlands compare with that in neighbouring countries?
 - Coordination with health changes (to be elaborated).
2. Relation between developments in society and wildlife and landscape developments
 - How are resources being used? What developments can be identified?
 - What pressures on available space can be identified and how are these channelled?
 - Does the land market for natural areas in the Netherlands show special characteristics compared to other land markets, and are these characteristics important for developments in wildlife and the landscape?
 - How are private and public efforts related?
3. Prospects
 - State of affairs and expectations for the National Rural Areas Investment Budget.
 - Do spatial developments parallel demographic developments?
 - Are natural areas accessible to all segments of society?
 - Who benefits from investments in natural areas (citizens, sectors of society, etc.)?
4. Framework and case studies
 - Examples include European developments in natural areas and land markets, driving forces for the development of harbour areas (e.g. economic developments, infrastructure, influence of the Birds and Habitat Directives, etc.).

Objective of project:

This project contributes to the 2007 Nature Balance report, specifically to the following chapters:

1. Developments in Dutch society
 - Developments in land use (agriculture, industrial estates, infrastructure, urbanisation,

wildlife).

- 'Urban Sprawl' and its relation to nature and the landscape.
- Land use in the Netherlands compared to that in neighbouring countries.
- Demographic changes: population dynamics, distribution and composition of population, immigration.
- Developments in affluence (GDP, if possible per region), employment, mobility (e.g. accessibility of natural areas) and health.

2. Relations between society and nature and the landscape

- Changes in the size of natural areas.
- Land market and the position of agriculture.
- Dutch land market from a Dutch and European perspective (to be elaborated).
- Pressures on nature and the landscape.
- Expenditures for nature and the landscape: voluntary contributions by private citizens and government expenditure; developments in countryside stewardship by private parties.
- Reporting on the debate about social cost-benefit analysis, valuation and effects.

3. Prospects

- Developing new government policies, in policy papers as well as enacted in Dutch legislation.
- Practical effects of new government policies?
- Cost-effectiveness (especially as regards land acquisition, temporal and spatial aspects).
- State of affairs with regard to agreements on the National Rural Areas Investment Budget (ILG).

4. Boxed text presenting case study

Case study remains to be selected.

Proposed and achieved research results and products:

In consultation with the 2007 Nature Balance team, we decided to concentrate on land use and economic developments as the main developments affecting nature and the landscape. The project focuses on the socio-economic context and conflicting claims on available land, while disregarding social developments that have no clear direct relationship with nature and the landscape.

Subjects that have been examined in the project, and that have resulted in statements in the 2007 Nature Balance report, include the decreasing population growth, the increasing number of households, increasing affluence, the growing demand for land to build on, leisure activities and the demand for natural areas for recreational purposes.

The research has focused on literature studies, analysis of data available from existing sources (such as Statistics Netherlands) and validation of data. The results have been reported in Chapter 2 of the 2007 Nature Balance report. The methods and sources have been explained in a background document.

Netherlands Environmental Assessment Agency, 2007. Nature Balance report. (In Dutch) MNP Bilthoven (2007).

Factsheet to support Chapter 2 of the 2007 Nature Balance: developments in society. (In Dutch) Written by Janneke Vader & Aris Gaaff (LEI, August 2007); this background document can be obtained from the Netherlands Environmental Assessment Agency (MNP).

2007 Nature Balance report: general activities

Programme WOT-04-006
Project results in 2007

Project name	2007 Nature Balance report: general section
Project No.	LEI 20796

Knowledge requirements of target group:

The subproject is an umbrella project, which tries to answer some concise research questions. Its main contribution, however, takes the form of project management: that is, the administrative, coordinating and organising tasks that help produce the 2007 Nature Balance report, including editing and the production of tables, graphs and figures, in the context of the activities of the core production team.

For administrative reasons, the subproject also covers the participation of staff members of the Agricultural Economics Research Institute (LEI) in subprojects led by Alterra staff. The description of the actual activities has been included in the relevant project descriptions (for Greet Overbeek, see Jan Vreke; for Trond Selnes, see Dana Kamphorst).

Objective of project:

The Nature Balance report offers an agenda of subjects that allows ministers and parliament to supervise policies, based on their political responsibility

The target readership of the 2007 Nature Balance report primarily consists of the Minister of Agriculture, Nature and Food Quality, the other cabinet ministers and the Dutch parliament. In addition, NB07 is also intended for the provincial authorities. Finally, NB07 is intended for policymakers, organisations involved in nature conservation policy and (through various media) interested members of the public.

The subproject aims to contribute to the work of the Core Team, which is responsible for the preparations, production process, definitive text and aftercare for the 2007 Nature Balance report. In addition, the subproject includes contributions by some LEI staff who participate in projects by the Statutory Research Tasks Unit for Nature & the Environment and Alterra.

Proposed and achieved research results and products:

The project has contributed to the production of the 2007 Nature Balance report, including coordination (as regards organisational and content aspects), consultations with subproject managers, editing successive drafts, and evaluation. The result is the published 2007 Nature Balance report.

Netherlands Environmental Assessment Agency, 2007. Nature Balance report. (In Dutch) MNP Bilthoven (2007).

Knowledge Management for Nature and Economics

Programme WOT-04-006	
Project results in 2007	
Project name	Knowledge Management for Nature and Economics
Project No.	LEI 20856
<p>Knowledge requirements of target group:</p> <p>Knowledge development relating to nature and economics, in the context of basic research by the Statutory Research Tasks Unit for Nature & the Environment. (Floor Brouwer)</p> <p>Knowledge development relating to the inclusion of ecological data in the BIN farm information database and increasing support for the use of the FIONA model (Farm-level Integrated Optimisation model for Nature and Agriculture). (Tanja de Koeijer)</p> <p>Activities of the Nature and Economics advisory group in 2007, including assistance by external experts where relevant, with the aim of producing two reports presenting the group's views to the outside world. (Geert Woltjer)</p>	
<p>Objective of project:</p> <p>Basic research is an important task of the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M). One crucial aspect of this task is the transfer of research findings to the Netherlands Environmental Assessment Agency (MNP). This is important for the entire cycle of formulating research questions, supervising the basic research efforts and translating the findings into MNP products. The action plan specifies activities needed to formulate the economic themes in the 2008 research programme.</p> <ul style="list-style-type: none"> - Activities relating to the Programme Committee for the Nature Policy Assessment Task (PCN). (Floor Brouwer) - Activities involving the development and implementation of farm economics data and models to evaluate nature conservation policy. (Tanja de Koeijer) <p>Offering advice (whether or not upon request) to the Netherlands Environmental Assessment Agency on research relating to 'nature and the economy' (in the context of the Nature and Economics advisory group). (Geert Woltjer)</p>	
<p>Proposed and achieved research results and products:</p> <ul style="list-style-type: none"> - Completion of 2006 basic research. - Managing the subprogramme on economics, 2007 basic research. - Programme of activities for basic research in 2008. - Participating in the advisory committee for the Centre for Economic Information (CEI). - Two meetings of the Nature and Economics advisory group. 	

Cost-effectiveness of the National Ecological Network: 2007 Synthesis

Programme WOT-04-006	
Project results in 2007	
Project name	Cost-effectiveness of the National Ecological Network: 2007 Synthesis
Project No.	LEI 20862

Knowledge requirements of target group:

How can biodiversity be included in the cost-effectiveness analysis and what instruments are cost-effective?

Objective of project:

The project aims to develop the methodology for including biodiversity and to optimise the instruments, as well as to report on the findings and include the results in the Nature Balance report.

Proposed and achieved research results and products:

Results to be included in 2007 Nature Balance report:

Results for ILG Supervisory Group relating to 'Costs of achieving intended environmental quality for the National Ecological Network and the Birds and Habitat Directives'.

Methodology and model for including biodiversity in cost-effectiveness analysis, Formulating research questions for 2008.

Stuurgroep Milieutekorten (2007) Costs of achieving environmental and water-related conditions for National Ecological Network and Birds and Habitat Directives. (In Dutch) The Hague, IPO/VROM/LNV, V&W/UvW, Den Haag.

Netherlands Environmental Assessment Agency (2007) 2007 Nature Balance report. Bilthoven.

De Koeijer, T.J., K.H.M. van Bommel, J. Clement, R.A. Groeneveld, J.J. de Jong, K. Oltmer, M.J.S.M. Reijnen & M.N. van Wijk (2008) Costs and expenditures for terrestrial wildlife in Natura 2000 areas. (In Dutch) WOT-N&M working document (In prep.) Wageningen

De Koeijer, T.J., K.H.M. van Bommel, J. Clement, R.A. Groeneveld, J.J. de Jong, K. Oltmer, M.J.S.M. Reijnen & M.N. van Wijk (2008) Cost-effectiveness of terrestrial part of National Ecological Network; exploration of possible applications. (In Dutch) WOT N&M report (In prep.), Wageningen

Oltmer, K., K.H.M. van Bommel, J. Clement, J.J. de Jong, D.P. Rudrum & E.P. Schouwenberg (2008) Applying the 'cost-effectiveness of nature conservation policy' method to Natura 2000 areas. (In Dutch), WOT N&M report (In prep.), Wageningen

Groeneveld, R. & D. Rudrum (2008) Habitat Allocation to Maximize Biodiversity: technical description of the Hambo model, WOT N&M working document (In prep.), Wageningen.

Thematic Assessment II, 2007

Programme WOT-04-006
Project results in 2007

Project name	Thematic Assessment II, 2007
Project No.	LEI 20863 / 5230004-06

Knowledge requirements of target group:

An evaluation of the recent shift in Dutch nature conservation policy from land acquisition by the government to countryside stewardship by current land owners, and the possible effects of changes in the EU's Common Agricultural Policy on this shift. The project specifically focuses on land owners' willingness to participate in such countryside stewardship schemes and the specification of policy on countryside stewardship by land owners.

Objective of project:

The project aims to provide an evaluation (in terms of ecological quality, participation by private land owners and farmers, short- and long-term costs) of the shift in Dutch government policy from land acquisition for conservation purposes to countryside stewardship by farmers and private land owners (including changes in land use), and to indicate policy options.

Proposed and achieved research results and products:

T.J. de Koeijer, et al. From land acquisition to countryside stewardship by land owners II. an ex ante evaluation of the recent shift in Dutch nature conservation policy. (In Dutch) MNP Publication No. 500402006.

Geelen, J. & H. Leneman, Interest in, motivation for and problems encountered in natural habitat creation by private land owners: Results of a market study. (In Dutch) WOt Working Document No. 69.

Leneman, H., J.J. van Dijk, W.P. Daamen & J. Geelen (2007). Market research among land owners on natural habitat creation: methods, results and policy implications. (In Dutch) Background document for the 'Evaluation of nature conservation policy shift'. (In Dutch) WOT Report No 53.

R. Verburg, H. Leneman, B. de Knecht & J. Vader (2007), Provincial authorities' policy on countryside stewardship by private land owners. (In Dutch) A background document for the evaluation of the current shift in Dutch nature conservation policy. WOT Report No 59.

Schrijver, R.A.M. & D.P. Rudrum (2008) Potential for participation in countryside stewardship schemes by herbivore farmers. (In Dutch) WOT N&M Report (In prep.)

BIN farm information database for agriculture and horticulture, 2007

Programme WOT-04-006
Project results in 2007

Project name	BIN farm information database for agriculture and horticulture, 2007
Project No.	LEI 31109 and LEI 30874 and LEI 30993

Knowledge requirements of target group:

There is a need to make representative and reliable data on 1500 farms in primary agriculture and horticulture available, to allow scientifically sound conclusions to be drawn. For over 1050 farms, this involves not only financial data but also data on matters like income sources outside the farm and the use of crop protection agents, antibiotics, fertilisers, organic manure and energy. Data on some of the farms (450) are bought from accountancy firms, which means that the dataset for these farms is limited to financial data.

Objective of project:

Continuing the upkeep of the database as part of the BIN farm information database, for the purpose of the statutory research tasks.

Proposed and achieved research results and products:

In 2006, a database was produced including data on over 1500 farms, with full data on 1050 farms and limited data on 450 farms, including reports for individual participants and overviews comparing farms.

6 WOT-04-007 - Environmental Policy Assessment Task

6.1 Report on WOT-04-007 programme

Statutory Research Tasks for Nature and the Environment (WOT N&M)

Programme WOT-04-007: Environmental Policy Assessment Task

1. Name and No. of cluster, name of cluster manager:
WOT-04, Nature & the Environment, Cluster manager: P. Hinssen

2. Name and No. of Programme
WOT-04-007 Environmental Policy Assessment Task

3. Name of programme coordinator and Wageningen UR department:
J.W.H. van der Kolk, Alterra, WOT N&M

Contact person(s) at Ministry of Agriculture, Nature and Food Quality and directorate at ministry / other persons involved and name of organisation:

R. van den Berg (Netherlands Environmental Assessment Agency)
H. Haanstra (Ministry of Agriculture, Nature and Food Quality, Dept. of Rural Affairs)
A. van Gemerden (Ministry of Agriculture, Nature and Food Quality, Dept. of Agriculture)
S. Mesu (Ministry of Agriculture, Nature and Food Quality, Dept. of Knowledge)
H. Groenewoud (Ministry of Agriculture, Nature and Food Quality, Dept. of Nature)
J. Klitsie (Ministry of Housing, Spatial Planning and the Environment)
H. Vissers (IPO interprovincial consultation programme)

4. Participating centres of expertise within and outside Wageningen UR:
Alterra, Agricultural Economics Research Institute (LEI), Plant Research International, Applied Plant Research (PPO), Animal Science Group, Wageningen University, University of Amsterdam (Institute for Environmental Studies)

5. Target group(s):
Netherlands Environmental Assessment Agency, policy departments at the Ministry of Agriculture, Nature and Food Quality and the Ministry of Housing, Spatial Planning and the Environment.

6. 2007 budget:

Amounts in € x 1000	Available in 2007	Spent in 2007	Transferred to 2008 (NUTO *)
Budget transferred from 2006 (NUTO)	118.5	118.5	0
Normal programme resources	820	783.8	36.2
Additional project resources from Ministry of Agriculture, Nature and Food Quality			
Total from Ministry of Agriculture, Nature and Food Quality	938,5	902.3	36.2
Other (if applicable)		N.A.	N.A.

***) only after permission is given by the cluster manager**

8. Policy task(s) of the Dutch Ministry of Agriculture, Nature and Food Quality to which the research findings contribute:
- Monitoring environmental quality in rural areas under the Environmental Management Act

- Monitoring sustainable agriculture
 - Outlook studies on agriculture and rural areas
- Supplying emission data for E-PRTR, NEC, etc.

9. Knowledge-driven questions that relate to the policy task(s) and are to be answered by the research findings: The Dutch Environmental Management Act (Article 4.2, Par. 4) requires the Netherlands Environmental Assessment Agency (MNP) to report to the government about the state of the Dutch environment (in its annual Environmental Balance report and regular fact-finding studies for ex-ante and ex-post policy evaluations) and developments regarding environmental quality and sustainability. MNP assists decision-making processes on environmental and sustainability issues through integrated studies and outlook studies to inform the public debate. Other departments are obliged to supply MNP with the relevant information. The Ministry of Agriculture requires data and information on sustainable agriculture, falling water tables, manure and ammonia, acidification, pesticides, heavy metals, energy, greenhouse gases and fine particulate matter (through the Dutch Emissions Inventory database). Other knowledge-related questions concern costs and benefits of the implementation of the EU's Water Framework Directive, exploring the consequences of the Common Agricultural Policy (CAP), exploring options to meet the requirements of the ammonia directive and evaluating the current transition towards sustainable agriculture.

In summary, the programme contributes to the following studies, in consultation with MNP and the Ministry of Agriculture, Nature and Food Quality:

- (i) *Environmental Balance report*: supplying data for the Emissions Inventory database, monitoring progress made in the context of the Kyoto protocol (carbon storage in forests and soil), monitoring the progress of the transition towards sustainable agriculture, reviewing draft reports.
- (ii) *Ex-ante and ex-post policy evaluation studies*, for instance on crop protection and manure policies. Several projects were completed in 2007, and their results have been used for the ex-ante evaluation of the Water Framework Directive and to explore the consequences of the recent changes in the CAP.
- (iii) *Sustainability Outlook and Environmental Outlook reports*: fact-finding studies and outlook studies to analyse problem areas and new developments in the relations between agriculture, the environment and nature, in order to help generate images and perspectives for the debate on sustainable agriculture. A study on these topics in three areas designated as 'National Landscapes' was completed in 2007.
- (iv) *Monitoring sustainable agriculture*: to support the transition towards sustainable agriculture initiated by the Dutch Ministry of Agriculture, Nature and Food Quality (LNV), stakeholder dialogues are used to monitor ambition levels per farming sector and the progress made so far in each sector.
- (v) *Basic research*: maintenance and management of databases and models for use in the studies listed above under (i), (ii), (iii) and (iv). Accurate models, which meet the requirements of the 'A' quality status, are of crucial importance, as they allow new questions by policy-makers to be answered quickly and adequately.

10. Proposed and achieved results and interim results for 2007:

- Outlook on rural areas quality draft report has been completed
- SENSOR progress according to plan
- Monitoring transition to sustainable agriculture report was submitted to LNV in October

- Synthesis of studies on sustainable agriculture report was submitted to LNV in October
- A Survey of Sustainable Agriculture report was submitted to LNV in October
- Ammonia options report in press.
- Options for CAP MNP Report completed; draft WOT Report completed

Products for Environmental Balance and Environmental Outlook reports and ad hoc policy studies (WOT)

- Contributions to 2007 Environmental Balance report ;delivered according to plan
- Contributions to Emissions Inventory; delivered according to plan
- Kyoto Protocol improvement activities; data supplied; started in response to international review
- Uniform manure data for 2005 and 2006 WUM delivered according to plan

Managing and improving models and databases

- Work on Manure and Ammonia Model delivered according to plan
- Maintenance and management of STONE delivered according to plan
- Completion of 'A' quality status for National Environmental Indicator (NMI) delivered according to plan

Completion of 2006 projects

- Perspectives document on sustainable soil management two draft papers completed
- International context of sustainable agriculture report completed
- Sustainable Agriculture in Europe report plus paper completed
- Outlook studies on agriculture report completed
- Developing metamodels report to be delivered in first half of 2008
- Benefits analysis for Water Framework Directive report completed
- Outlook on nutrient use efficiency report completed; workshop held in January 2008

Communication and coordination

- Communication delivered according to plan
- Coordination and programme management delivered according to plan

11. Knowledge transfer to target group and utilisation of knowledge by target group

Project plans have been discussed and approved by the contacts at the Netherlands Environmental Assessment Agency (MNP). Progress meetings have been held for each of the projects. Researchers at Wageningen University and Research Centre have supplied a wide variety of input and have contributed to the writing of the MNP report entitled 'Data and ambitions for sustainable development of agriculture; changes during the 2001–2006 period.' (In Dutch). Together with the projects entitled 'A View of Sustainable Agriculture' and 'Dialogues on the Transition to Sustainable Agriculture in the Netherlands', this project has been closely assisted by a feedback group with representatives of the Ministry of Agriculture, Nature and Food Quality and the Ministry of Housing, Spatial Planning and the Environment.

Data supplied to the Emissions Inventory database have been used for national and international reports. These include not only the Environmental Balance report, but also reports to meet international obligations under E-PRTR.

12. Collaboration between DLO research institutes involved in the programme and other institutes/organisations:

Implementation of the projects involves various expertise centres within Wageningen University and Research Centre (Environmental Sciences, Social Sciences, Plant Sciences, Animal Sciences). The projects have also been coordinated with the Knowledge Base Theme Management (KB) and policy-supporting research (BO) cluster managers.

6.2 Project reports for WOT-04-007

Survey of WOT-04-007 projects

No .	Project No.	Project name	Page
2006	5233137-01	Completion of Metamodels	17
2006	5233243-01	Completion of perspectives documents on land use	19
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1.1			
1.1	5210234-03	Environmental Balance report	27
1.1	LEI 30916	Manure and ammonia indicators for the 2007 Emissions Inventory database	29
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1.2	02-5211478 and 4436651600 and LEI 31044	Working Group on Agriculture and Land Use	33
1.3	LEI 30946 and 4436625000	Working party for Uniform Manure Data 2007; contributions by LEI and ASG	35
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1.8	LEI 30903	Monitoring Sustainable Agriculturer (2007 Edition)	45
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1.10	3310341700 and 4483700001 and 4483700006	Ammonia and dairy farming in 2010	49
1.11	01-5233793 and 4431661500 and 3250082900 and LEI 20906	Evaluating the transition to sustainable agriculture, 2001–2006	51
2.1	5233678-01	STONE steering committee	53
2.2	LEI 31005	MAM/MAMBO	55
2.3	5233500-01	Achieving the 'A' quality status for version 2 of the National Environmental Indicator	57
3.1	5233572-01	Communication for the Environmental Policy Assessment Task	59
3.2	03-5210233 and LEI 31004	Programme coordination for WOT-04-007	61

Completion of Metamodels

Programme WOT-04-007	
Project results in 2007	
Project name	<i>Completion of Metamodels</i>
Project No.	<i>5233137-01</i>
<i>Knowledge requirements of target group:</i> There is a need for a simple model to rapidly provide a rough estimate of the level of nitrogen leaching from farmlands. The model outcomes have to allow comparisons with those of the national STONE instruments. One option to achieve this is metamodeling.	
<i>Objective of project:</i> <ol style="list-style-type: none">1. Creating a simple process-oriented model for nitrogen leaching to groundwater and surface water.2. Calibrating the process-oriented model against the STONE outcomes.3. Validating the model against nationwide STONE calculations.	
<i>Proposed and achieved research results and products:</i> Salm, C. van der, T. Hoogland & D. Walvoort, 2008. Developing a metamodel for nitrogen leaching from farmlands. (In Dutch) WOT Working Document No. xx, WOT N&M, Wageningen.	

Completion of perspectives document on land use

Programme WOT-04-007	
Project results in 2007	
Project name	Completion of perspectives document on land use
Project No.	5233243-01
<i>Knowledge requirements of target group:</i> Although there is a great need to develop 'sustainable land use,' it is as yet unclear what this means. There is therefore a need for perspectives on sustainable land use.	
<i>Objective of project:</i> The project aims to: <ol style="list-style-type: none">1. produce a document outlining perspectives on sustainable land use and exploring policy options that could contribute to sustainable land use, based on literature studies and interviews with stakeholders;2. produce a plan of action to underpin the perspectives on sustainable land use that are to be presented;3. organise a workshop to discuss the perspectives.	
<i>Proposed and achieved research results and products:</i> Manuscript for the Dutch journal Bodem: 'Niets is zonder grond' (everything has its grounds) Authors: Oene Oenema ¹) & Aaldrik Tiktak Abstract for the Eurosoil conference in Vienna in August 2008. Entitled: Appreciation of Soil by Dutch Society. Authors: Aaldrik Tiktak, Oene Oenema & Reinier van den Berg	

Sustainable agriculture in Parma

Programme WOT-04-007	
Project results in 2007	
Project name	Sustainable agriculture in Parma
Project No.	5233254-01
Knowledge requirements of target group: In 2005, a study explored how agriculture in four European regions might develop under two extreme scenarios ('world views') from the Sustainability Outlook project by the Netherlands Environmental Assessment Agency (MNP). In its comments on the study, the supervisory committee indicated that it would be useful to actually interview the stakeholders to assess what views on the future are being held within the regions and what dilemmas and problems the residents perceive as regards sustainability.	
Objective of project: The project aims to examine the current debate on sustainability and quality in rural areas in other European countries. It tries to ascertain the long-term contributions that could be made by agriculture to the sustainability of rural areas. This has been assessed for the Parma province (Italy) and South-East England (UK).	
Proposed and achieved research results and products: <i>Rijn, J.F.A.T. van & W.A. Rienks (2007). The future of farming near expanding towns and cities; essays on the sustainability of rural areas under urban pressure: South-East England versus the province of Parma. (In Dutch) WOt Report No 46, WOT N&M, Wageningen.</i> Rienks, W.A. & J.F.A.T. van Rijn, 2007. Parma and South-East England. The regional answer to globalisation. (In Dutch) Landwerk 3-2007. 15-19.	

Completion of Benefits of Water Framework Directive project

Programme WOT-04-007	
Project results in 2007	
Project name	Completion of Benefits of Water Framework Directive project
Project No.	LEI 20799
<p><i>Knowledge requirements of target group:</i> The Quick Scan study on the EU's Water Framework Directive (WFD) published by the Netherlands Environmental Assessment Agency (MNP) outlines some possible strategies to use the WFD to achieve more comprehensive objectives in the Netherlands, such as 'meeting all targets for the Birds and Habitat Directives in 2015', 'trying to develop the Netherlands as a water-rich country with clean lakes' and 'combining the redevelopment of water courses with developments relating to National Landscapes.' Whereas the costs of these strategies have been estimated, nothing is known about the benefits.</p>	
<p><i>Objective of project:</i> The project aims to estimate the benefits of achieving WFD targets and implementing WFD measures in the lakes in the Dutch province of Friesland, on the basis of water-related interests and in collaboration with local stakeholders. The objective is twofold: (1) developing a method that can be applied in a wider context, and (2) assessing the benefits. The Frisian lakes area has been chosen as a case study.</p>	
<p><i>Proposed and achieved research results and products:</i> Reinhard, A.J., N.B.P. Polman, R. Michels & H. Smit (2007). Benefits of the Water Framework Directive for the Frisian lake areas: An interactive SCBA exercise. (In Dutch) WOt Report No 48, WOT N&M, Wageningen</p> <p>Stijn Reinhard, Maria Witmer & Thomas Ietswaart (2007) Social cost-benefit analysis of the Water Framework Directive for the Frisian lakes area. (In Dutch) H2O 16-2007:p37-40.</p>	

GeoPearl

Programme WOT-04-007	
Project results in 2007	
Project name	GeoPearl
Project No.	5234167-01
<i>Knowledge requirements of target group:</i> There is a need for data on the level of uncertainty in the outcomes of GeoPEARL calculations which are used in studies by the Netherlands Environmental Assessment Agency (MNP).	
<i>Objective of project:</i> Identifying the weakest links in the chain of models relating to GeoPEARL.	
<i>Proposed and achieved research results and products:</i> Berg, F. van den, D.J. Brus, S.L.G.E. Burgers, G.B.M. Heuvelink, J.G. Kroes, J. Stolte, A. Tiktak & F. de Vries, 2008. Uncertainty analysis of GeoPEARL, Alterra Report.	

Environmental Balance report

Programme WOT-04-007	
Project results in 2007	
Project name	Environmental Balance report
Project No.	5210234-03 (1.1)
Knowledge requirements of target group: Supplying knowledge required for the production of the 2007 Environmental Balance report. The information will be used especially for the chapter on 'Agriculture and Rural Areas.'	
Objective of project: The Environmental Balance project coordinates the work by Wageningen University and Research Centre for the 2007 Environmental Balance, and prepares work for the 2008 Environmental Balance.	
Proposed and achieved research results and products: A high-quality chapter on agriculture and rural areas in the Environmental balance report. No requests have been received for ad-hoc investigation of topics by Wageningen UR experts. Environmental Balance 2007, MNP No. 500081004	

Manure and ammonia indicators for the 2007 Emissions Inventory database

Programme WOT-04-007	
Project results in 2007	
Project name	Manure and ammonia indicators for the 2007 Emissions Inventory database
Project No.	LEI 30.916 (1.1)
<p><i>Knowledge requirements of target group:</i> The Netherlands Environmental Assessment Agency (MNP) has requested the availability of large volumes of preliminary data on manure and ammonia for the years 2005 and 2006.</p>	
<p><i>Objective of project:</i> The project aims to supply and check data to be used in the Environmental Balance report / Emissions Inventory database and to prepare methodological improvements for future data supply.</p>	
<p><i>Proposed and achieved research results and products:</i> The project has produced files with data on manure and ammonia emissions over the year 2005, calculated using the MAM manure and ammonia model, as well as a memorandum on preliminary ammonia emission data for 2006. In addition, it has published an internal memorandum entitled 'Report on the Manure and Ammonia Indicators project for the 2007 Emissions Inventory.' (In Dutch) (M. Hoogeveen, H. Luesink & P.W. Blokland.)</p>	

Farm nutrient surpluses for the 2007 Environmental Balance report

Programme WOT-04-007	
Project results in 2007	
Project name	Farm nutrient surpluses for the 2007 Environmental Balance report
Project No.	LEI 30.916 (1.1)
<p><i>Knowledge requirements of target group:</i> The Netherlands Environmental Assessment Agency (MNP) has requested information on developments in nitrogen and phosphate surpluses at arable and dairy farms over the 1986 – 2005 period and on developments in the use of fertiliser and manure to supply nitrogen and phosphate. It has also requested data on cumulative distributions of the use of manure per hectare on arable and dairy farms for the years 2002, 2004 and 2005.</p>	
<p><i>Objective of project:</i> MNP has used the results in its 2007 Environmental Balance report.</p>	
<p><i>Proposed and achieved research results and products:</i> MNP has selected certain illustrations and used them in its Environmental balance report.</p>	

Working Group on Agriculture and Land Use

Programme WOT-04-007	
Project results in 2007	
Project name	Working Group on Agriculture and Land Use
Project No.	5211478-02 / 4436651600 / LEI 31044 (1.2)
<i>Knowledge requirements of target group:</i> There is a need for up-to-date information about measurement and calculation techniques to allow the best data to be supplied for the Emissions Inventory database. Data must be supplied on ammonia emissions from agricultural activities and on 'Land Use and Land Use Change and Forestry' (LULUCF). In addition, the project has supplied the chairperson for the agriculture task force of the Emissions Inventory database team.	
<i>Objective of project:</i> The Emissions Inventory project aims to collect data on emissions from various sources in the Netherlands, data which are used to meet a range of national and international obligations. The Working Group on Agriculture and Land Use ensures the supply and quality assurance of relevant emissions data.	
<i>Proposed and achieved research results and products:</i> Data supplied: <ul style="list-style-type: none">- Ammonia data on agriculture for t-2 and t-1- LULUCF data (t-2)- Data supply for the international review on greenhouse gas emissions	

Working Party for Uniform Manure Data 2007; contributions by LEI and ASG

Programme WOT-04-007	
Project results in 2007	
Project name	Working Party for Uniform Manure Data 2007; contributions by LEI and ASG
Project No.	LEI 30946 / 4436625000 (1.3)
Knowledge requirements of target group:	
There is a need for data to be supplied by the Agricultural Economics Research Institute (LEI) from the BIN farm information database and by the Animal Science Group (ASG) from the so-called TEA data on pig farming, to allow the Working Party for Uniform manure data (WUM) to produce accurate estimates of average manure and minerals excretion per animal.	
Objective of project:	
The project involves LEI and ASG supplying the required data and expert knowledge for the WUM meetings.	
Proposed and achieved research results and products:	
An article on the WUM excretion calculations (entitled 'Animal manure and minerals in 2005 and 2006' (in Dutch)) has been published on the Statistics Netherlands (CBS) website: //www.cbs.nl/nl-NL/menu/themas/natuur-milieu/publicaties/artikelen/archief/2007/2005-dierlijke-mest-en-mineralen-art.htm	

Preparing the 2008 dialogues on the transition to sustainable agriculture

Programme WOT-04-007	
Project results in 2007	
Project name	Preparing the 2008 dialogues on the transition to sustainable agriculture
Project No.	LEI 20501 / LEI 20919 / 5233759-01 (1.5)
Knowledge requirements of target group:	
Is it possible and necessary to improve the methodology used in the 2006 dialogues project (Project No. 20501)?	
Objective of project:	
The current project (No. 20919) aims to prepare the 2008 follow-up dialogues, based on the 2006 baseline assessment (Project No. 20501).	
Proposed and achieved research results and products:	
Borgstein, M.H., H. Leneman, L. Bos-Gorter, E.A. Brassier, A.M.E. Groot & M.F. van de Kerkhof (2007). Dialogues on the transition to sustainable agriculture in the Netherlands. Ambitions and recommendations by the farming sector. (In Dutch) WOT Report No 44.	
Groot, A.M.E, M.H. Borgstein, H. Leneman, M.F. van de Kerkhof, L. Bos-Gorter & E.A Brassier (2007). Dialogues on the transition to sustainable agriculture in the Netherlands. Structured sector-specific dialogues in the context of a monitoring methodology. (In Dutch) WOT Report No 45.	
Brassier, E.A., M.F. van de Kerkhof, A.M.E. Groot, L. Bos-Gorter, Borgstein, M.H & H. Leneman (2007). Report on the Dialogues on Sustainable Agriculture (In Dutch) Wot Working Document No. 66.	

Outlook on rural areas quality

Programme WOT-04-007	
Project results in 2007	
Project name	Outlook on rural areas quality
Project No.	3310115101 / 5233565-01 (1.6)
<i>Knowledge requirements of target group:</i> The project tries to answer the following research question: What policy options are available to solve potential problems affecting the quality of rural areas by 2020? These problems relate to a combination of autonomous developments and policy plans in three of Dutch areas designated as 'National Landscapes.'	
<i>Objective of project:</i> The project aims to analyse developments that may affect National Landscapes now and in the future, and their effects on attempts to meet various sustainability targets for these areas. The analysis will relate to autonomous developments expected for three of these National Landscapes on the basis of extrapolated existing trends, economic and demographic prognoses and policies initiated by the European Union and the Dutch national and provincial governments. The project team consults with stakeholders to examine policy options that might stop undesirable developments and stimulate preferred developments. The National Landscapes being studied are known as Oost Achterhoek, Groene Woud and IJsseldelta. The current study compares developments in these three areas. The areas were chosen so as to ensure clear differences between them in terms of urban pressure, agricultural activities and type of landscape.	
<i>Proposed and achieved research results and products:</i> Korevaar, H., W. Meulenkamp, H. Agricola, R. Geerts, B. Schaap & J. van der Kolk (2008) Quality of the rural areas in three Dutch 'National Landscapes'. (In Dutch) WOT Report (in prep.)	

SENSOR

Programme WOT-04-007	
Project results in 2007	
Project name	SENSOR
Project No.	5231547-01 (1.7)
<p>Knowledge requirements of target group: The work of Alterra in SENSOR responds to the call in the WOT-04-007 programme to provide quantitative knowledge to assess the impact of present and future environmental policies on the sustainability of land use in rural areas .</p>	
<p>Objective of project : The specific tasks of Alterra in SENSOR regarding the objectives of WOT are twofold : (i) assessing the impact of European policies on multifunctional land use at regional level by verifying impact indicators on the basis of sustainability thresholds and targets derived from scientific knowledge, expert consultations and regional stakeholders (Module 3); and (ii) designing and building the software for the ex-ante Sustainability Impact Assessment Tool (Module 4) In addition, Alterra plays an important role in Module 1 regarding the Coordination of the whole project .</p>	
<p>Proposed and achieved research results and products :</p> <p>Activities :</p> <ul style="list-style-type: none"> - D 1.1.3 Semi-annual and annual activity reports of the project for Alterra and Module 3², including the New Implementation Plan - D 1.3.1 Minutes of internal Module and cross-module meetings - D 1.4.3 Annual publication of 2 Newsletters on the website - D 3.2.2 and D 3.2.4 Risk assessment and indicator thresholds to identify Sustainability Problem Regions - D 3.3.4 Stakeholder-based validation of sustainability problems - D 3.2.2a Methodology for a regional sustainability assessment - D 3.2.2.c Regional environmental indicator thresholds - D 4.3.1 SIAT end user tool (architecture and design of prototype 2) <p>Scientific publications :</p> <p>2007:</p> <ul style="list-style-type: none"> - Manuscripts for a SENSOR book entitled 'Sustainability Impact Assessment of Multifunctional land use ' to be published by Springer in April 2008. Editors : Katharina Helming, Marta Pérez-Soba & Paul Tabbush . The scientists of the Alterra team have contributed to the following chapters : <ul style="list-style-type: none"> • Ex ante impact assessment of land use change in European regions – the SENSOR approach (Helming, Tabbush, König, Wascher, Pérez-Soba et al). • Clustering Europe : a spatial regional reference framework for land use assessment (Renetzeder, Van Eupen, Mücher, Wrbka) • Land use functions – an approach to integrate social, economic and environmental impacts of land use change (Pérez-Soba et al). 	

² SENSOR has 33 partners and consists of seven modules . Alterra is the second main partner and coordinates Module 3 and plays a major role in Module 4

- **Mücher, C.A ,C.C. Vos, C. Renetzeder, T. Wrbka, M. Kiers, M. van Eupen and R. Bugter** (2007). The application of satellite imagery to identify landscape structure. In: Proceedings of the IALE 2007 World Congress July 8th – 12th, Wageningen, the Netherlands, pp. 590 – 591.
 - **Mücher, C.A & D.M. Wascher** (2007) European Landscape Characterization. In: Pedrolí B, van Doorn A, de Blust G, Paracchini ML, Wascher D, Bunce F (eds). Europe's Living Landscapes. KNNV Publishing (Zeist, The Netherlands) in cooperation with LANDSCAPE EUROPE, pp 37-43, ISBN 978 90 5011 258 1.
 - **Pérez-Soba M**, San Miguel A, Elena-Rosselló R (2007) Complexity in the simplicity: the Spanish dehesas. The secret of an ancient cultural landscape with high nature value still functioning in the 21st century. In: Pedrolí B, van Doorn A, de Blust G, Paracchini ML, Wascher D, Bunce F (eds). Europe's Living Landscapes. KNNV Publishing (Zeist, The Netherlands) in cooperation with LANDSCAPE EUROPE, pp 369-384, ISBN 978 90 5011 258 1.
 - **Pérez-Soba M., Bunce R.G.H.,** Herzog F., Gómez Sal A., Jongman R.H.G. & Austad I. 2007. Assessing the role of transhumance in the sustainability of European mountain environments: the TRANSHUMOUNT project. Proceedings of the IALE 2007 World Congress July 8th – 12th , Wageningen, the Netherlands, pp. 712-713
 - **Bunce R.G.H., Pérez-Soba, M. & Smith M.** 2007. Assessment of the extent of Agroforestry systems in Europe and their role within transhumance systems. Series Advances in Agroforestry. Agroforestry in Europe Rigueiro-Rodríguez A, McAdam J & Mosquera-Losada, M.R. (eds.). Springer, Dordrecht, The Netherlands (in print).
- 2008:**
- SENSOR book entitled 'Sustainability Impact Assessment of Multifunctional land use' to be launched in April 2008 during the SENSOR Final Conference
 - Landscape structure as a proxy for environmental indicators, Renetzeder, Wrbka, **Mücher & van Eupen**, to be submitted to Landscape Ecology
 - Land Use Functions: an approach to integrate economic, environmental and socio-cultural impacts of land use change, **Pérez-Soba**, Petit & Jones, to be submitted to Journal of Land use Science, Taylor & Francis group
 -

Monitoring Sustainable Agriculture (2007 Edition)

Programme WOT-04-007	
Project results in 2007	
Project name	Monitoring Sustainable Agriculture (2007 Edition)
Project No.	LEI 30903 (1.8)
<i>Knowledge requirements of target group:</i> The process of monitoring the transition to sustainable agriculture initiated by the Ministry of Agriculture, Nature and Food Quality (LNV) requires a great deal of quantitative information on sustainability achievements by Dutch primary agriculture, especially the glasshouse horticulture, dairy farming and pig farming sectors.	
<i>Objective of project:</i> The project aims to monitor the transition to sustainable agriculture, in order to report on this process to the Dutch parliament.	
<i>Proposed and achieved research results and products:</i> Koen Boone, Kees de Bont, Klaas Jan van Calker, Anita van der Knijff & Hans Leneman View on Sustainable Agriculture. Results achieved by Dutch agriculture and horticulture in terms of people, planet & profit. LEI Report No. 2.07.09	

Options for the CAP

Programme WOT-04-007	
Project results in 2007	
Project name	Options for the CAP
Project No.	LEI 20933 (1.9)
<p>Knowledge requirements of target group: What is the effect of changes in the financial basis of direct payments in the context of the EU's Common Agricultural Policy (CAP):</p> <ul style="list-style-type: none"> - for the structure of and production by the Dutch farming sector; - for wildlife, the landscape and the environment. 	
<p>Objective of project: It is assumed that direct payments to the farming sector will increasingly shift towards support payments to safeguard values for which government intervention is legitimate, that is, safeguarding the quality of collective goods that market forces fail to protect. The additional efforts required from farmers to safeguard such public values imply additional costs, which can be compensated via the existing direct payments to farmers. This implies shifts in payments between farms and regions. However, the existing direct payments to supplement farmers' incomes will be converted into compensation for additional costs due to additional management measures, and will thus no longer be regarded as extra income. The present study analyses various scenarios, each with a different basis for the CAP, and calculates their consequences. Each scenario represents an optimised specification of CAP support from the perspective of one particular public value. One scenario relates to additional efforts for wildlife and the environment, while the other scenario relates to additional efforts to safeguard landscape quality. The project aims to examine the effectiveness of support payments as an instrument to serve the specific public value, as well as the side effects for the farming sector as a whole. Since it is clear that the abolition of all or part of the farm subsidies and the introduction of additional efforts to safeguard wildlife, the environment and the landscape will have major consequences for the farming sector as a whole. All our scenarios assume the same budget for support payments, in order to allow the scenarios to be compared.</p>	
<p>Proposed and achieved research results and products: Heiligenberg, H.A.R.M., J. van Dam, A.G. Prins, M.A. Reudink & H. van Zeijts (2007). Options for European agricultural subsidies. (In Dutch) Netherlands Environmental Assessment Agency. Publication No. 500136001 / 2007 Helming, J.F.M. & R.A.M. Schrijver (2008). Options for European agricultural subsidies. (In Dutch) Background report. WOt Working Document (In prep.) Helming, J.F.M. & R.A.M. Schrijver (2008). Effects of agri-environmental measures and changes in EU single farm payments on Dutch agriculture. Paper prepared for presentation at the 107th EAAE Seminar "Modeling of Agricultural and Rural Development Policies". Seville, Spain, January 29th - February 1st, 2008</p>	

Ammonia and dairy farming in 2010

Programme WOT-04-007

Project results in 2007

Project name	Ammonia and dairy farming in 2010
Project No.	3310341700 (1.10)

Knowledge requirements of target group:

Factors explaining the ammonia emissions by dairy farms are being identified and quantified for frontrunner farms that take part in a programme for innovative, environmentally friendly systems, and are thus about three years ahead of the average Dutch farm. This is expected to result in an accurate prediction of the 2010 emissions.

Dairy farmers have to make choices regarding aspects like feed composition, the time animals spend in pastures or the age at which cows are replaced. The project will quantify the consequences of such choices for ammonia emissions.

Objective of project:

Dairy farms are emitting about 50 kilotons per year of ammonia. Measures to reduce these emissions by changing feed composition do not appear to be meeting their targets. As a consequence, the intended and agreed Dutch emission reductions to a maximum of 128 kton in 2010 (as established in the Fourth National Environmental Policy Plan NMP4 and the NEC (National Emission Ceilings) Directive, respectively) may not be achieved.

The project aims to examine what options dairy farmers have to reduce ammonia emissions by 2010. The project analyses the results of farms that are about three years ahead of average farms in terms of innovative operational systems, and translates these into options for the sector as a whole, based on the characteristics of specific farms, such as farm size, soil type and production intensity.

Proposed and achieved research results and products:

Aarts, H.F.M., G.J. Hilhorst, L. Sebek, M.C.J Smits & J. Oenema, 2008. Ammonia emissions by Dutch dairy farms after adoption of innovative operational systems. (In Dutch) WOT Report (In prep.)

Evaluating the transition to sustainable agriculture, 2001–2006

Programme WOT-04-007	
Project results in 2007	
Project name	Evaluating the transition to sustainable agriculture, 2001–2006
Project No.	5233793-01 / 4431661500 / 3250082900 / LEI 20906 (1.11)
<p>Knowledge requirements of target group: This study was undertaken jointly by the Netherlands Environmental Assessment Agency (MNP) and the Statutory Research Tasks Unit for Nature & the Environment (WOT N&M), at the request of the Ministry of Agriculture, Nature and Food Quality. The research questions concern actual developments with regard to indicators that are relevant for sustainable agriculture, as well as changes in the sustainability ambitions of the various agricultural sectors.</p>	
<p>Objective of project: In 2001, the fourth National Environmental Policy plan (NMP4) and the report entitled The future of Livestock Farming (In Dutch) by the Wijffels Commission advocated making Dutch agriculture more sustainable. The present study tries to diagnose the progress made since then on the path towards sustainable agriculture, and analyses its significance for the transition towards sustainable agriculture, from the perspective of the future of agriculture in the Netherlands.</p>	
<p>Proposed and achieved research results and products: Zeijts, H. van, M.M. van Eerd & J.W.H. van der Kolk. 2007. Sustainable development of agriculture in facts and ambitions; changes between 2001 and 2006. (In Dutch) MNP Report No. 500139002. The publication of this report has led to considerable media attention. The report is to be presented to the Dutch parliament, together with Boone et al. (2007) and Borgstein et al. (2007). Based on the report, a presentation was given to staff at the Ministry of Agriculture, Nature and Food Quality (Depts. of Agriculture and Rural Affairs) on 3 December 2007.</p>	

STONE steering committee

Programme WOT-04-007	
Project results in 2007	
Project name	STONE steering committee
Project No.	5233678-01 (2.1)
<p>Knowledge requirements of target group: The evaluation of the Dutch Fertilisers Act requires a set of reliable instruments to assess the consequences of current and future fertilisers policies (ex-ante analyses) and to explain the observed levels of nutrient leaching to groundwater and surface water (ex-post analyses). In addition, the instruments should be suitable for analyses/assessments in the context of the EU's Water Framework Directive.</p>	
<p>Objective of project: The project aims to coordinate the development of the models required to answer policy questions on nutrient problems. To this end, a steering committee has been established, consisting of representatives of the Netherlands Environmental Assessment Agency (MNP), the DLO research institutes and the Institute for Inland Water Management and Wastewater Treatment (RIZA), which has been given the task of (a) developing perspectives, (b) taking the relevant decisions and (c) coordinating the implementation of these decisions. If necessary, there is a budget to fund working groups for specific subsidiary tasks.</p>	
<p>Proposed and achieved research results and products:</p> <ul style="list-style-type: none"> - Two meetings of the steering committee. Documents and decisions have been confirmed in the minutes of meetings by the STONE Steering Committee (secretary: A.Riechelmann@riza.rws.minvenw.nl). - The audit has been coordinated with MNP; supplementary suggestions have been made and adopted by MNP; work to prepare the 2008 audit has so far been very limited. - Preparing and chairing two meetings with relevant civil servants to explain STONE and present data. - Consultations with a number of regional water boards on opportunities to derive simple tools from STONE, like those derived in the past for drought. - Consultations with working group, organised by the OWO consultation group, about modelling surface water quality. - Presenting STONE results in the context of the 2007 evaluation of the Fertilisers Act to representatives of regional water boards, in workshops on emissions and eutrophication. - The present project also involves coordinating the communication of results of STONE-related activities funded by other projects to the three ministries and civil servants (RAOs) involved. <p>Report by the OWO working Group. Perspectives on water quality modelling. (In Dutch) P.M. Boers et al.</p> <p>Schoumans, O.F., P. Groenendijk & J. Willems, 2007. STONE in 2007 and regional prospects. (In Dutch) Workshop on emissions, Driebergen, 22 November 2007. Organised by STOWA foundation for applied water research..</p> <p>Schoumans, O.F., P. Groenendijk & J. Willems, 2007. Reducing non-point source nutrient loads from rural areas? Workshop on eutrophication Groenekan 13 December 2007. Organised by the Directorate-General of Public Works and Water Management.</p>	

MAM/MAMBO

Programme WOT-04-007

Project results in 2007

Project name	MAM/MAMBO
Project No.	LEI 31005 (2.2)

Knowledge requirements of target group:

There is a need to understand the way the revised MAMBO model for manure and ammonia is functioning, its background and the quality assurance system.

Objective of project:

The project aims to explain MAMBO to a wider audience, and to make it more user-friendly. Explanation should involve producing documentation on all aspects of the model and its use. Making it more user-friendly should allow the model to be used by non-experts.

Proposed and achieved research results and products:

Vrolijk H.C.J., P.W. Blokland, F. Bouma, W. Dol, H. Luesink, G. Kruseman & L. Mokveld (2008), MAMBO: Design principles, model structure and data use. (In prep.)

Kruseman G., P.W. Blokland, F. Bouma, H. Luesink, L. Mokveld & H.C.J. Vrolijk (2008) Micro-simulation as a tool to assess policy concerning non-point source pollution: the case of ammonia in Dutch agriculture. 107th EAAE Seminar "Modeling of Agricultural and Rural Development Policies". Seville, Spain, January 29th - February 1st, 2008

Achieving the 'A' quality status for version 2 of the National Environmental Indicator

Programme WOT-04-007	
Project results in 2007	
Project name	Achieving the 'A' quality status for version 2 of the National Environmental Indicator
Project No.	5233500-01 (2.3)
<p>Knowledge requirements of target group: The Netherlands Environmental Assessment Agency (MNP) imposes certain quality requirements on models and databases it uses in its research. The National Environmental Indicator (NMI) is being used by MNP in its evaluation of sustainable crop protection.</p>	
<p>Objective of project: Achieving the 'A' quality status for version 2 of the NMI.</p>	
<p>Proposed and achieved research results and products: The audit report contains a number of recommendations. The A status can be granted as soon as the report on the sensitivity analysis has been completed. This is expected to be the case by the end of 2008.</p> <p>Reports (in the context of quality documentation):</p> <ol style="list-style-type: none"> 1. Deneer, J.W., A.M.A. van der Linden, R. Luttik & R.A. Smidt, 2003. An environmental indicator used on national and regional scales for evaluating pesticide emissions in the Netherlands. Proceedings of the XII Symposium Pesticide Chemistry, Piacenza, 641-648. 2. Kruijne, R., R.C.M. Merkelbach en J.G. Groenwold, 2007. Regional test for the National Environmental Indicator in the sandy areas of the Dutch province of Noord-Holland. (In Dutch) Wageningen, WUR-Alterra, Report No. 1517, 118 pp. 3. Van der Linden, A.M.A., R. Luttik, R. Kruijne & J.G. Groenwold, 2008. Sensitivity and uncertainty analyses of the Dutch Environmental Indicator for pesticides. RIVM Report No. 607600001 (draft). 4. Van der Linden, A.M.A., H.F.R. Rijnders, M.C. Zijp & A.M. Durand-Huizing, 2007. Residues of crop protection agents in groundwater. An analysis in the context of the Water Framework Directive. (In Dutch) RIVM Report No. 607310001/2007 (Draft) 5. Van der Linden T., Durand A., Zijp M. & Reijnders H, 2007. Occurrence of pesticides in groundwater bodies in the Netherlands. In : A.A.M. Del Re, E. Capri, G. Fragoulis & M. Trevisan (eds). Environmental fate and ecological effects of pesticides. Proceedings of the XIII Symposium on Pesticide Chemistry. Italy, Piacenza, September 3-6, 2007. pp 763-769. 6. Van der Linden A.M.A., Deneer J.W., Luttik R. & Smidt R.A., 2004. Dutch Environmental Indicator for Plant Protection Products - Description of input data and calculation methods, Bilthoven, RIVM Report No. 716601009 (NMI version 1) 7. Van der Linden, A.M.A., P. van Beelen, G.A. van den Berg, M. de Boer, D.J. van der Gaag, J.G. Groenwold, J.F.M. Huijsmans, D.F. Kalf, S.A.M. de Kool, R. Kruijne, R.C.M. Merkelbach, G.R. de Snoo, R.A.N. Vijftigschild, M.G. Vijver & A.J. van der Wal, 2006. Evaluation of sustainable crop protection 2006: the environment. (In Dutch) RIVM, Bilthoven, Report No. 607016001. 	

Communication for the environmental assessment task

Programme WOT-04-007	
Project results in 2007	
Project name	Communication for the environmental assessment task
Project No.	5233572-01 (3.1)
<i>Knowledge requirements of target group:</i> The Dutch government is in need of knowledge on nature, landscape and the environment in their administrative, economic and social contexts. The Statutory Research Tasks Unit for Nature & the Environment (WOT N&M) supplies this information in particular to the Ministry of Agriculture, Nature and Food Quality (LNV) and the Netherlands Environmental Assessment Agency (MNP). This project plays a major part in this process.	
<i>Objective of project:</i> <ul style="list-style-type: none">• Developing the profile of the WOT-04-007 programme and promoting the circulation of knowledge.• Promoting and coordinating internal communication among the programme staff, communication between the programme and other WOT N&M and policy-supporting research (BO) programmes, communication with MNP, communication with LNV policy departments and communication with third parties.• Stimulating and coordinating the production of publications on programme projects.	
<i>Proposed and achieved results</i> Positive effects on the programme's position in the field. Increased commitment among staff at the participating agencies, to the WOT-04-007 programme in particular, and to WOT N&M in general. A survey of all reports, working documents, articles and presentations is provided below in the chapter on the products of WOT-04-007, the 2007 Environmental Policy Assessment Task.	

Programme coordination for WOT-04-007

Programme WOT-04-007	
Project results in 2007	
Project name	Programme coordination for WOT-04-007
Project No.	5210233-03 / LEI 31004 (3.2)
<i>Knowledge requirements of target group:</i> The 'Environmental Policy Assessment Task' programme involves supplying data and knowledge for the products of the Netherlands Environmental Assessment Agency (MNP). Since a number of products require high-quality modelling instruments, the present programme includes the management and maintenance of a number of important models.	
<i>Objective of project:</i> The project aims to ensure the smooth implementation of the programme, while trying to ensure a close match between the questions asked by the MNP and the research being carried out in the WOT-04-007 programme.	
<i>Proposed and achieved research results and products:</i> The proposed results take the form of information and reports that can be used in current or future MNP products.	

Wot-onderzoek

Verschenen documenten in de reeks Werkdocumenten van de Wettelijke Onderzoekstaken Natuur & Milieu

vanaf 2006

Werkdocumenten zijn verkrijgbaar bij het secretariaat van Unit Wettelijke Onderzoekstaken Natuur & Milieu, te Wageningen. T 0317 – 48 54 71; F 0317 – 41 90 00; E info.wnm@wur.nl

De werkdocumenten zijn ook te downloaden via de WOT-website www.wotnatuurenmilieu.wur.nl

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- 23 *Jaarrapportage 2005.* WOT-04-001 – Monitor- en Evaluatiesysteem Agenda Vitaal Platteland
- 24 *Jaarrapportage 2005.* WOT-04-002 – Onderbouwend Onderzoek Natuurplanbureauafunctie
- 25 *Jaarrapportage 2005.* WOT-04-385 - Milieuplanbureauafunctie
- 26 *Jaarrapportage 2005.* WOT-04-394 – Natuurplanbureauafunctie
- 27 *Jaarrapportage 2005.* WOT-04 - Kennisbasis
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- 29 *Velthof, G.L. en J.J.M. van Grinsven (eds.)* Inzet van modellen voor evaluatie van de meststoffenwet. Advies van de CDM-werkgroep Harmonisatie modellen
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- 31 *Swaay, C.A.M. van, V. Mensing & M.F. Wallis de Vries.* Hotspots dagvlinder biodiversiteit
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- 36 *Groeneveld, R.A. & R.A.M. Schrijver.* FIONA 1.0; Technical description
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- 48 *Kruit, J. & I.E. Salverda.* Spiegeltje, spiegeltje aan de muur, valt er iets te leren van een andere plannings-cultuur?
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- 101** *Mansfeld, M.J.M. van & J.A. Klijn*, "Balansen op de weegschaal". Terugblik op acht jaar Natuurbalansen (1996-2005)
- 102** *Sollart, K.M. & J. Vreke*. Het faciliteren van natuur- en milieueducatie in het basisonderwijs; MNE-ondersteuning in de provincies
- 104** *Wijk, M.N., van (redactie)*. Aansturing en kosten van het natuurbeheer. Ecologische effectiviteit regelingen natuurbeheer
- 105** *Selnes, T. & P. van der Wielen*. Tot elkaar veroordeeld? Het belang van gebiedsprocessen voor de natuur
- 106** *Jaarrapportage 2007 Engelstalige versie*, Programma WOT-004

