

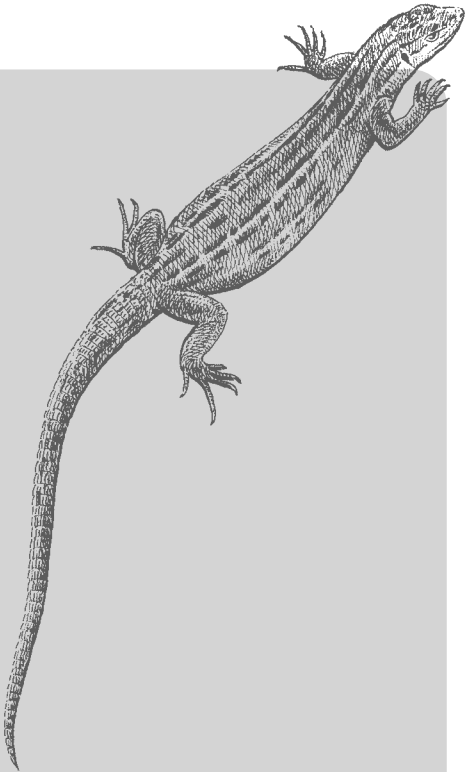
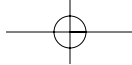


Natura 2000

Promoting the socio-economic benefits of Natura 2000



Case Study in the “Pond Complex of Central-Limburg”



Colophon

This brochure is an edition of WWF-Belgium.
November 2002.

Sources:

This document is based on the information obtained by personal interviews with local stakeholders of the study area (catering owners, fish farmers, camping owner, provincial and local tourist services, private landowners, representatives of the nature conservation authorities (Aminal) and nature conservation NGOs). Additional data have been obtained through official bodies, such as the development company GOM-Limburg, the Flemish Manure Bank (VLM), and financial data via the National Bank. The content of this document has been discussed during a local stakeholders workshop.

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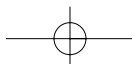
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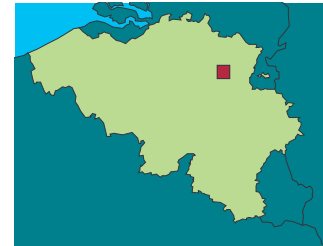
Introduction

The European ecological network of protected areas – Natura 2000 – is gradually moving from concept to reality, with 15 per cent of the EU’s territory now included within the network. Nevertheless, despite encouraging progress in recent years, work is still very much behind schedule. The delays are critical given the continuing decline in Europe’s biodiversity. In Europe, 64 endemic plants are extinct and 38% of bird species are threatened. In North and Western Europe, some 60% of wetland area has been lost over the last century. The condition of forests remains critical and decline continues in large parts of Europe.

The delays are partly due to local concerns that Natura 2000 designation will damage prospects for economic development in these areas. In practice, however, there is increasing evidence that Natura 2000 designation

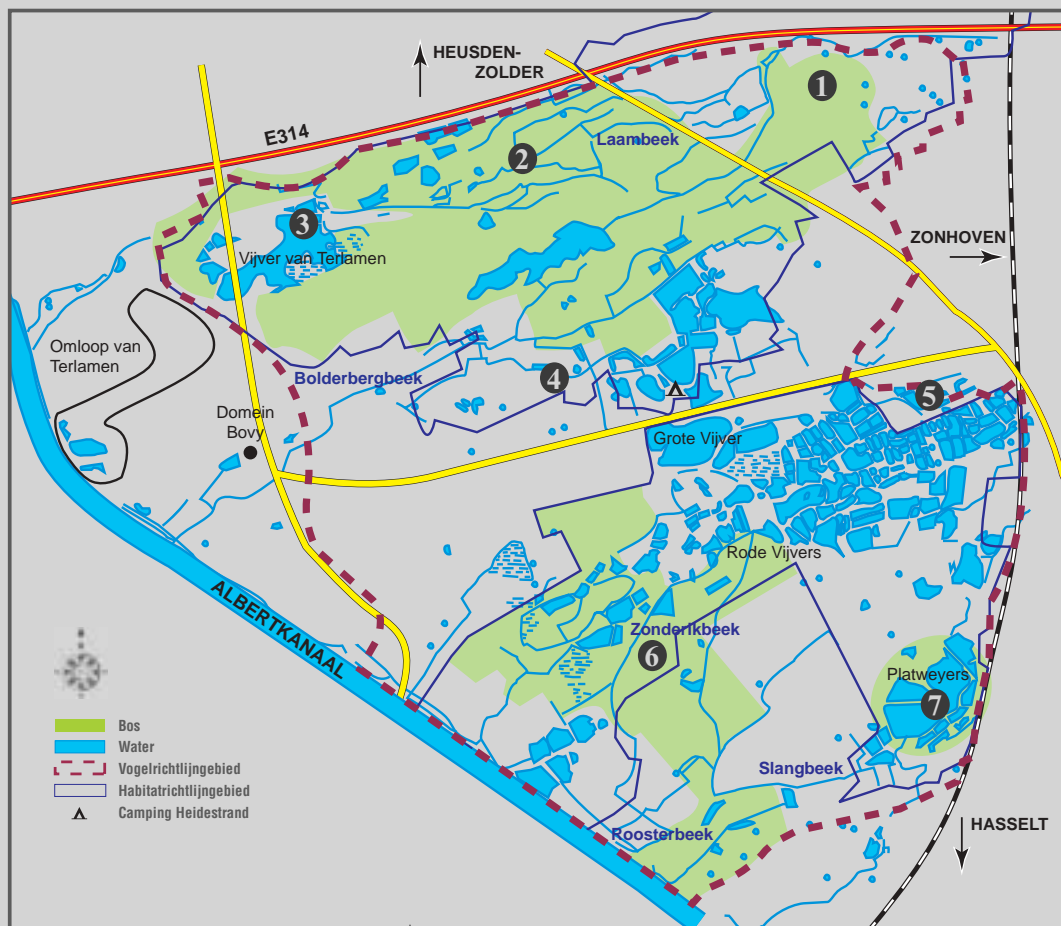
can lead to positive opportunities for local communities and economies.

To support better implementation of Natura 2000, IEEP and WWF are running a joint project in 2002 to promote the socio-economic benefits of the network. The project is being co-funded by the European Commission, and includes preparation of six local case studies, including this study on the Pond Complex of Central-Limburg. Together, the six studies examine actual and potential benefits in proposed Natura 2000 sites in Austria, Belgium, Denmark and Spain, as well as in Latvia and Estonia. Each study has been prepared by WWF national offices or country partners, in close partnership with local stakeholders. In Belgium, WWF worked together with the study bureau “WES-Onderzoek & Advies”.



Overview of the Pond Complex

- 1 The Geelberg: Marsh with grasslands and bushes
- 2 Vogelsanck: Wooded area with the largest pond of the Pond Complex
- 3 Terlamen and Bolderberg: humid land along the small streams and a testimony hill from ferruginous sandstone
- 4 Waterlozen: Patchwork of landscape features
- 5 Wijvenheide and Ter Donk: Pond complex with marshland, scrub, heather, meadows and hedges
- 6 Kolberg: Wooded area with ponds, small streams, marshland and hay meadows
- 7 Platwijers: Ponds, meadows and forests



Headline Results

The Pond Complex has a total surface area of 2,500 ha and consists of a patchwork of ponds, marshes, heather, forests, etc. With a total surface area of approximately 500 ha, the area represents the most important pond complex of Belgium. The whole site has been designated under the EU Birds Directive, and large parts of it under the Habitats Directive.

The natural values of the site have diminished strongly because of water pollution and intensification of fish farming during the 1970s. Its designation as a Natura 2000 area in 1996 allowed NGOs and the Flemish authorities to invest in nature conservation, using EU support (LIFE and ERDF).

Besides offering natural benefits, the Natura 2000 site also provides some important socio-economic benefits. It welcomes about 20,000 day visitors each year, and directly provides for about 10 % of the local catering sector's turnover. The most important economic sector on the site is fish farming (4 family businesses occupying 188 ha), having a total annual turnover of approximately € 1,400,000. Agriculture and forestry sectors are also present. The total site related receipts amount to about € 2,700,000, with another € 800,000 to € 1,100,000 in indirect receipts. Direct employment on and related to the site is currently estimated at around 50 to 60 full-time equivalent jobs (FTE). Taking into account the multiplier effect, total employment (direct + indirect) can be estimated at between 65 and 85 FTE jobs.

In spite of the area's limited accessibility, its natural values and location within a bigger "green lung", offer major tourism and economic opportunities. The area is also able to attract European funding as it is situated within an "Objective 2" area under the EU Structural Funds, as well as being an Objective 1 transition area. However, maximizing these opportunities will require clear zoning, careful and sustainable development of economic activities on the site and elaboration of suitable tourist infrastructure. There is also a clear need to promote the natural assets of the area and to generate increased public support through intensive dialogue with all local stakeholders.

Current efforts to restore the site and raise awareness, coupled with sensitive socio-economic development, can certainly lead to important economic, social and societal benefits, in addition to the ecological benefits directly resulting from Natura 2000 designation.



The Bittern is the flagship species of the Pond Complex. Thus, the restoration of its habitat has an important symbolic value.

Site Description

The Pond Complex is located within the triangle formed by the communities Hasselt, Zonhoven and Heuden-Zolder, in the Limburg province of northeast Belgium.

With a total surface area of approximately 2,500 ha, this is the most important pond complex in Belgium. Due to its mosaic of ponds, pools, small streams, reed beds and grasslands, as well as deciduous and coniferous woodlands, it represents an important wintering, breeding, resting and feeding area for many rare or threatened species such as the Bittern, Little Bittern, Bluethroat and Marsh Harrier. Species such as the Black woodpecker, Treefrog, Weatherfish, and Floating water plantain also occur. During winter, also the site harbours very important numbers of Gadwall (about 2% of the total Western European population).

Vegetation characteristic of nutrient-poor water bodies is well established on the site, giving it a unique character in Belgium.

Site History

The site was created by the exploitation of moorlands for fish breeding and the extraction of peat and iron ore. Once these exploitation activities ended, the ponds were abandoned. From 1865, fish breeding became a professional activity. Subsequently, new pools were created by digging up grassland areas. The substantial surface area of the pond complex, as well as the diversity of the associated biotopes, has contributed to the site's outstanding biological value. Since 1970, this value has been threatened by deteriorating ecological conditions (low water quality, intensive use of pesticides) and the modernisation of fish farming practices.

Protection of the Bolderberg and Terlamen area had already been considered in 1940. In 1976, the area known as de Platwijers became a nature reserve. The whole Pond

complex was designated as a "green area" in the official Land Planning Ordinance in the 1970s, and was designated as a Special Protection Area under the EU Birds Directive in 1988.

"The actual tendency of fish-farms to manage the ponds less intensively, and the Natura 2000 designation, certainly offer opportunities for nature rehabilitation on the site".

Lily Gora, Nature Conservation Authority

In 1996, substantial parts of the site were proposed as Special Area of Conservation under the EU Habitats Directive. The regional nature conservation authorities also included the site as a pilot project for the development of "nature management plans" within the framework of the Flemish Ecological Network.

Finally, several steps have been taken in order to include a sizeable part of the site on the list of Wetlands of International Importance under the Ramsar Convention. One of the reasons for this designation has been the Gadwell population.

Site Context

The Natura 2000 site is situated in a wider 'green lung' area, together with a number of other nature sites (park Midden-Limburg). These sites are situated between the regional urban centres of Hasselt and Genk. This larger regional nature park Midden-Limburg (which has a more elevated area with woods and moors, and a lower pond complex) already has several attractions from a tourist and recreational point of view (Kelchterhoef, Hengelhoef, Bokrijk, Domein Kiewit, Herkenrode, Bolderberg, Domein Bovy, race circuit of Terlamen, several hotels, etc.). Surprisingly, in spite of its potential, the Vijvercomplex has never appeared on local, rural or regional tourism development plans

“The Natura 2000 site is part of a larger ‘green lung’ stretching across the regional urban area of Hasselt-Genk, and has a unique character of its own”

Lily Gora, Nature Conservation Authority.

(see Objective 2, Regional Vision, Tourism Action Plan). However, tourism development in the neighbouring “Nature Park Midden-Limburg” has been noted, and this park is more or less adjacent to the project site.

Large information panels, installed by nature conservation NGOs, provide information about the area’s history and natural wealth, and inform visitors about ongoing nature restoration projects. This helps galvanise public support for nature and nature conservation.

Het Vijvercomplex van Midden-Limburg

HISTORIEK

Dit 2.500 ha grote Vijvercomplex is het grootste van België. De meeste vijvers werden aangelegd of ontstonden na het uitdiepen van vennen voor de ontginning van turf en ijszeters. Een doordachte aansenschakeling volgens het verval zorgt ervoor dat ze gevuld kunnen worden vanuit de beekjes. De viskweek dateert uit de Middeleeuwen. Lange tijd was het een nevenactiviteit tot Antoon Bijns er in 1865 zijn broodwinning van maakte.

EN DE TOEKOMST?

Het zal niet eenvoudig zijn om de grote natuurlijke variatie van het Vijvercomplex in al haar glorie te herstellen. Hiervoor is samenspraak met alle gebruikers nodig. Dit is geen gemakkelijke opgave, maar een noodzaak om deze brok Europees natuurlijk erfgoed te behouden.

AANZET TOT HERSTEL

Daarom koos WWF-Belgium in 1997 het herstel van het leefgebied van de roerdomp als uitgangspunt voor een natuurproject in dit gebied. Daarnaast werden herstelmaatregelen voorzien voor de beekvalletjes en de bossen, heiden en weiden die met de vijvers en moerassen verweven zijn. Het initiatief kreeg belangrijke financiële steun uit het Life-fonds, dat projecten voor behoud en herstel van de natuur in Europa ondersteunt.

MINDERE TIJDEN

Na 1970 drong intensivering zich op. Vele vijvers degradeerden tot ‘badkuipen’ met steile, verstevigde oevers zonder gevarieerde begroeiing. Samen met waterverontreiniging zorgde dit voor een sterke afname van de flora en fauna, tot het verdwijnen van de roerdomp toe.

BIOLOGISCHE RIJKDOM

De artisanale visteelt bracht een grote biologische rijkdom mee. De rietvelden, moerassen en voedselarme wateren herbergen tal van dieren en planten. Voor de roerdomp vormde het Vijvercomplex het kerngebied van de Vlaamse populatie.

Door zijn mysterieuze verschijning en dito roep, die klinkt als een misthoorn of een loeiende stier in de verte, is de roerdomp voor natuurbeschermers het ‘paradepaardje’ van het rietmoeras. Deze reigerachtige is volledig beschermd in Europa.

De hoge natuurrijkdom en landschappelijke waarde leidde tot diverse beschermingsinitiatieven op nationaal en zelfs Europees vlak, nl. als Vogel- en Habitatrichtlijngebied. Natuurverenigingen ijveren hier al bijna een halve eeuw voor de oprichting van rustgebieden.



- 1 De Geelberg: moerassig gebied met graslanden en bosjes
- 2 Vogelsanck: vrij omvangrijk bos met de grootste vijver uit het Vijvercomplex
- 3 Terlaemen en het beschermd landschap Bolderberg: natte terreinen langs beken en een geluigenheuvel uit ijzerzandsteen
- 4 De Waterlozen: natuurgebied met vele kleine landschapselementen
- 5 Wijvenheide en Ter Donk: diverse kleine tot grote vijvers naast moerassen, bosjes, heide en weiden met houtwallen
- 6 Kolberg: bosrijk gebied met vijvers, beken, moerassen en hooilanden
- 7 De Platwijers: vijvers afgewisseld met weiland en bos

WATERRIJKE NATUUR
DANKZIJ EN ONDANKS DE MENS

Dit Life-project is een samenwerkingsverband van



WWF-Belgium vzw



Natuurpunt Vlaanderen vzw



Stichting Limburgs Landschap vzw

Met de steun van



Het Life-Fonds van de Europese Commissie



De Provincie Limburg



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Activities on “Vijvercomplex”

Within the Natura 2000 site, the following socio-economic activities take place.

Agriculture, forestry and fish farming (primarily cultivation and cattle-rearing), forestry and of course fish-breeding are the primary production activities related to the natural resources of the site. There are four fish farms, exploiting 188 ha of ponds, and 32 agricultural farms, of which at least part of their land (approximately 312 ha) is situated in the study area.

Tourism and recreation

The region's main tourist centres (Bokrijk, Hengelhoef, Kelchterhoef) and the race circuit of Terlamen (Zolder) are situated outside the Pond Complex. Tourist visits (day-trippers and those staying longer) to the Pond Complex mainly result from visits to other tourist attractions in the area.

One exception is the campsite “Heidestrand” in the center of the area, which has 720 plots and an open-air swimming pool, attracting many visitors during summer. Undoubtedly, people are attracted by the calm and natural surroundings of the Natura 2000 site.

In areas where public access is partly granted, quite intense active and passive recreational activities are taking place, such as walking and cycling. These activities mostly take place in the areas around Bolderberg and Platwijers, and around the Red Ponds (Rode Vijvers) and its chapel.

Various local groups, including schools and associations, can use these sites to pursue educational and leisure interests, either related to nature, or just for relaxation purposes (“walks and talks”).

A number of catering businesses (hotels, restaurants, pubs) are present on the site, especially near Bolderberg, which service this type of recreational activity.

There is also a local horse-riding centre with about 500 members.

Education and awareness

Within the area, the NGOs – Stichting Limburgs Landschap and Natuurpunt – and the local tourism services regularly offer guided nature walks. These attract between 300 and 900 people every year. Visits to a local fish farm are being organized as well. The total number of participants varies between 600 and 950 persons per year.

Nature conservation

The regional authorities and NGOs are currently actively involved in the development of a ‘vision’ for the area. The aim is to manage, restore and conserve nature.

Together with other nature conservation NGOs, WWF started a project – Promotion of the ecological rehabilitation of the Pond Complex of Central-Limburg – in 1997. The project's main objective was the rehabilitation of the breeding and feeding biotopes of Bitterns. With financial support from LIFE, the Flemish Region and the Province of Limburg, land was purchased and managed, information panels installed, and leaflets distributed. Based on the insights from the rehabilitation programme, a computer simulation assessed the survival chances of bitterns in the area. The project was concluded in September 2002.

In addition to these activities, the Flemish Region's Forestry Division and the Nature Division purchased several plots of land. These were part of an initiative to develop environmentally friendly management practices.

An eco-hydrological study has also been undertaken, on behalf of the nature conservation authorities. Inventories of fauna and flora are regularly also drawn up by volunteers.

“For ten years, I have been training daily in the Pond Complex. This area is very important for me, and not only for me, because more and more people come to walk and jog. I think most people get to understand the value of this site.”

(Marleen Renders, marathon runner)

Ecological Benefits

Three animal and one plant species listed under Appendix II of the Habitats Directive are present on the site:

Crested newt – *Triturus cristatus*
Weatherfish – *Misgurnus fossilis*
Bitterling – *Rhodeus sericeus amarus*
Floating water plantain - *Luronium natans*

Four species of amphibians protected under Appendix IV of the Habitats Directive are present in the Vijvercomplex :

Moor frog – *Rana arvalis*
Treefrog – *Hyla arborea*
Spadefoot toad – *Pelobates fuscus*
Natterjack toad – *Bufo calamita*

Breeding or migrant species protected under the EU Birds Directive (Appendix I) are:
Bittern – *Botaurus stellaris*
Little Bittern – *Ixobrychus minutus*
Kingfisher – *Alcedo atthis*
Bluethroat – *Luscinia svecica*
Marsh Harrier – *Circus aeruginosus*
Honey Buzzard – *Pernis apivorus*
Black woodpecker – *Dryocopus partius*
Purple Heron – *Ardea purpurea*
Spotted Crake – *Porzana porzana*
Black Tern – *Chidonias niger*
Great white egret – *Egretta alba*
Osprey – *Pandion haliaetus*

The area harbours several habitat types, listed in Appendix I of the Habitats Directive:

2330 – Inland dunes with open grasslands
3110 – Oligotrophic waters containing very few minerals
3130 – Oligotrophic to mesotrophic standing waters
4010 – Northern Atlantic wet heaths
4030 – European dry heaths
9190 – Old acidophilous oak woods
91E0 – Alluvial forests

The site harbours a large number of species protected under both the EU Birds and Habitats Directives.

In addition, the site harbours an internationally important population of Gadwall (about 2% of the total Western European population) during the winter.

Threats

The outstanding natural value of the site, which mostly owes its existence to the digging of fish ponds for small-scale fish breeding, has been threatened since the 1970s due to the intensification of activity and a reduction in water quality.

The situation has slowly improved. Thanks to the LIFE Project as well as the regular purchase of land by the regional conservation authorities, about 130 ha of land has been set aside for conservation during the last four years. About 350 ha are now being managed as forest or nature reserves. The conservation and rehabilitation activities have already led to an increase in biodiversity.

The Bittern and the Little Bittern have been sighted again, in part also due to management and the recreation of an open pond landscape. The treefrog seems to have benefited from these activities as well: the species has been heard again, with 26 calling males in the spring of 2002.

Effects of the inclusion of the site on the Natura 2000 list

The inclusion of the site on the Natura 2000 list has already allowed the financing of some important nature restoration and awareness-raising activities, via the LIFE fund. These not only have a positive effect on the habitats and species present, but make the area more attractive to hikers as well.

In addition, the designation as a Natura 2000 site and as part of the Flemish Ecological Network, will allow the authorities to impose stronger restrictions on activities that might have a significant impact on the habitats and species for which the area has been proposed. A proper management plan has to be developed for the site, indicating the nature conservation objectives and the necessary management actions. A stakeholder dialogue is foreseen as part of the development of the plan. This dialogue and a public inquiry should create a broad ownership for the implementation of the proposed measures.

“The first results of the LIFE project are becoming visible. Recently, 10 just metamorphosed tree frogs were sunbathing in the border vegetation of a pond. The diversity of herons, egrets and bitterns is bigger than ever (7 species, such as the Bittern and Little Bittern). And recently, five calling fish eagles have been sighted.”

Chris Onkelinx, nature conservator of Wijvenheide and Red ponds

Economic Benefits

Tourism and recreational activities

Although the area is only partially accessible to the public, there is quite a lot of active and passive recreational activity going on.

Until now, most tourist activities (related to the Natura 2000 site) have focused on the campsite Heidestrand, which lies in the central part of the site. This campsite has 120 holiday plots (12% occupancy rate on an annual basis) and 600 permanent plots (97 % occupancy rate). Other activities (sale of caravans, cafeteria and swimming pool) contribute to the total yearly turnover. Between 15,000 and 20,000 day-tourists visit the swimming pool and the cafeteria each year. Campsite visitors come from the Limburg fruit-growing area, the Netherlands (Maastricht, Eindhoven), Germany (Aachen, Düsseldorf) and Liège. Day-tourists come from the region itself.

“While most clients are not currently attracted by nature in the first place, spending some time in a green area is seen as an important asset.”

Roger Horion, owner of Hostelry De Kluis

A number of hotels are also situated in the northwestern part of the site. Most of their business derives from activities outside the site, such as auto racing and business trips not directly linked to nature. Based on discussions with the stakeholders concerned, it is estimated that 10% of their turnover (or between € 200,000 to 300,000) is currently related to the Natura 2000 site.

Six youth hostels are also situated in Heusden-Zolder, one of which is within the study area.

Recreational activities in the study area are mostly concentrated in the northwestern part, around Bolderberg. The local tourist information service in Heusden-Zolder seeks to restrict recreational activities on the site to this area (and to a few limited cycling and walking paths). Their preference is to direct tourists to Domein Bovy, which is just outside the site and has the necessary infrastructure, such as a cafeteria and a play area. The recreational activities make use of a provincial network of cycling trails, local cycling trails, “nature” walking paths, local cultural attractions, excursions for groups and schools, a permanent mountain bike trail, and organized visits to the local fish ponds. In addition, a provincial network of horse trails is being developed.

Thanks to the designation of the area as a Natura 2000 site and the related LIFE project, high quality interpretation panels have been placed at Bolderberg and the Red Ponds (Rode Vijvers), providing information about the natural values of the area and the management measures being taken in the framework of the LIFE project. At the “Red Ponds”, a comfortable picnic corner has been created beside the panel.

Estimation of the yearly number of visitors to the site

Day-tourists (1)	20,000
Participants in organized nature excursions (NGOs)	200
Participants in organized nature excursions (tourism information centres)	100-700
Participants in organized excursions to the fish ponds	600-950

(1): The number of longer stays is not known.



Environmentally sensitive recreation, one of the big assets of the area.

“The site has a tremendous potential as far as tourism and recreation are concerned”

(Marcel Dumon, Tourism Office Heusden-Zolder)

Agriculture

The agricultural activities on the project site mainly involve cultivation and cattle-breeding (permanent or seasonal). Around 32 cultivators are active on the project site and roughly 31 % of their cultivated land area is situated in the study area. The area under agricultural exploitation is approximately 312 ha. The total income resulting from this exploitation (expressed in Gross Standard Balance) is estimated at about € 209,000.

Fish farming

Fish farming is a family business. The total surface area currently under exploitation by the four fish farmers present on the study site is about 188 ha. They breed fish for human consumption and for release into public or private places (e.g. angling ponds). Ornamental species are also reared.

Since the 1970s, fish farmers have increased their income by modernising production and by importing fish from Eastern Europe.

The total turnover of these activities on the study site is now estimated at around € 1,400,000. However, the growing number of cormorants is considered to pose a threat to the profitability of farms. From talks with fish farmers, it also appears that staff shortages pose a problem.

Forestry

Forestry used to be an important activity in the area, with pine trees grown to provide poles for the region's coalmines. At present, forestry activities are limited. The estimated total turnover of the private forestry sector is just € 40,000. On an irregular basis the authorities receive a small revenue from the sale of timber as a by-product in habitat management (€ 6,700 in 2000).

Site Receipts (estimations for 1999)

	in €
Agriculture (Gross standard balance)	209,000
Turnover fish-breeding	1.400,000
Turnover hostelry and camp site	1.000,000
Turnover forestry (private)	40,000
Turnover, miscellaneous (rental fish-ponds, hunting fees, fishing clubs, etc.)	9,000
Total	2,658,000

Direct benefits from Funding

Two projects have received EU financial support over the last two years:

1/ the LIFE project "Promoting the ecological rehabilitation of the Pond Complex of Central-Limburg" (WWF-Belgium and partners) - the project is co-financed by the Limburg Province, and indirectly by the Flemish Region, the province and the local councils.

2/ an eco-hydrological study, ordered by the nature conservation authorities and financed by the European Regional Development Fund. This study investigated ground water levels and flows, and water quality in the area. It also provided important data to support the future management of the Natura 2000 site.

Budget and Funding Sources LIFE-project (1998-2002)

Revenues	in €
Europe (LIFE)	410,749
Flemish Region	579,348
Province	19,292
Local councils	4,220
Own participation WWF	105,260
Total	1,118,869

Expenses	in €
Staff	200,000
External support, management	191,126
Tools	17,130
Land purchases	683,029
Information and awareness	6,068
Other expenses	21,516
Total	1,118,869

"You need to be a born fish-breeder, otherwise you'll never accept doing such a job"

*Roger Vandeput,
Fish-farmer*

Since 1997, the Natura 2000 site has already attracted more than € 3.7 million of investment.



Direct socio-economic advantages of the LIFE-project include employment opportunities (1 to 4 part-time jobs), expenses related to land purchases (about 61% of the total project budget), contracted management measures and running costs and investments (an example of the multiplier effect in the wider region). This is also the case for external expertise provided (study of the Bittern's chances of survival).

The Flemish nature conservation authorities also invested in the area, namely in the nature reserves Platwijers and Wijvenheide. This brings the total investment in the Natura 2000 site between 1997 and 2002 to:

Investments in nature conservation (1997-2002)

	in €
LIFE project	1,118,869
Eco-hydrological study (ERDF)	58,833
Nature reserves (AMINAL)	2,547,607
of which :	
– <i>personnel</i> :	327,464
– <i>investments and other expenses</i> :	1,878,337
– <i>studies (outside services)</i> :	341,806
Total	3,725,309

European Objective 2 funding was also made available for the neighbouring Domein Bovy in the past in order to develop the area in a qualitative and sustainable way (e.g. for the meadow path and visitor car park).

Indirect benefits

While it is more or less possible to trace the effect of monies going to the site and services immediately supported by the site, the money continues to circulate in the economy and creates benefits for others. These indirect effects are more difficult to trace. Generally, it is addressed by the use of local economic multipliers.

National enquiries proved that such economic multipliers – depending on the “open character” of the region – can vary between 1.3 and 1.4. The indirect benefits can thus be estimated at € 800,000 - € 1,100,000.

Employment Benefits

Local (nature-oriented) employment is primarily related to the campsite and the catering industry, fish breeding, nature management and agriculture. It involves about 50 to 60 people (see below).

It is rather difficult to assess the effects of the development of tourism and recreation compatible with the carrying capacity of the site, based on the data currently available (also because of the lack of relevant studies). However, experience with other natural areas developed for tourism shows that it can be important, especially when the value of the “natural experience” is expressed in terms of economical returns.

Direct employment on site

Direct employment from on-site activities in 2001 (based on the available data) is estimated at:

	FTE
Nature conservation NGOs	2,9
part-time jobs (1,4 FTE), 1 volunteer. Maximum 2,4 FTE were related to the LIFE-project	
Nature conservation authorities	3,0
for planning, setting-up of nature management, employment of a nature and a forest warden.	
Catering industry and camping (estimation)	12,0
9 full-time jobs (FTE), 5 part-time jobs (0,6 FTE), 15 student jobs (2,5 FTE)	
Fish-breeding	11,0
Private landowners (estimation)	9,0
game warden, estates maintenance staff, etc.	
Horse riding (estimation)	6,0
Agriculture (estimation) *	12,0
Total	55,9

* 32 farmers are active on the site. As far as employment opportunities are concerned, one needs to consider voluntary assistance and work by other family members (x 1,2). With only 31 % of the land under cultivation situated on the site, employment opportunities are estimated at around 12 FTE.

Employment through the Life project

	1998	1999	2000	2001	2002
FTE	0,5	0,5	2,8	2,4	0,5

Employment directly linked to site, but off-site

There are no available studies on the region's suppliers, and the stakeholders consulted could not provide any reliable information. However, numerous suppliers are involved in

relation to: food and beverages, fertilizers, machines for agricultural and fish-breeding activities, products and equipment for hotels, restaurants and the camp site, maintenance of machines for the forestry sector, etc. Off-site employment (directly related to the site) should currently be estimated at 2 to 5 FTE in total. A number of hotels and restaurants, situated just outside the limits of the site, benefit partially from an increase in tourism and recreation.

Indirect Employment benefits

Studies in Belgium and the Netherlands have shown that, depending on the way money stays on the site, it can have a multiplier effect of between 1.3 and 1.4. Therefore, the total direct and indirect employment should be estimated at between 65 and 85 FTE.

Employment context in the region

As far as job opportunities are concerned, the wider Midden-Limburg region is somewhat paradoxical. On the one hand, the economy is rapidly growing (compared to the average situation in the Flemish Region), but on the other hand, there is also a high unemployment rate (8.9 % in the Hasselt area). The situation can be explained by the fact that economic growth is not fast enough to cope with the growth in the total number of people on the job market. Also, Midden-Limburg has a relatively young population.

Alongside the transition from a production economy to a knowledge-based economy (with creativity, know-how, technology and innovation as the main assets), the authorities have selected tourism, recreation and 'green assets' as important sectors for future development in their global strategy for the region. The socio-economic benefits of the Natura 2000 site fit perfectly with this vision and can further reinforce and diversify the employment opportunities offered in the 'mine reconversion area'.

Rural and Regional Development Benefits

Over the last few decades, there have been important attempts to develop alternative

employment opportunities, following the closure of the coalmines. The objective has essentially been to create a more balanced economy, with a sufficiently diverse industrial base underpinning tertiary activities. Moreover, some tertiary activities, particularly tourism, can generate growth independently from other sectors.

The region has already benefited from EU co-financing based on its status as an 'Objective 2' area. Under the present programming period (2000-2006), part of the project site lies within the Objective 2 area, on the territory of Heusden-Zolder. Another part of the site covering Zonhoven and Hasselt is covered by Transitional area status under 'Objective 1'. An analysis of the relevant programming documents reveals that the site is not explicitly mentioned among the activities to be supported. However, it is possible that applications relating to the Natura 2000 site are supported.

The development strategy of the regional development society GOM-Limburg does not specifically refer to the project area either. However, it does stress the importance of "nature and green areas" in the development of tourism in Limburg. This is, moreover, seen to reinforce the living and working environment of the region.

Long-term strategic benefits of the site

A strategic plan for tourism and recreation in the Province of Limburg has recently been published. Tourism opportunities, including nature or 'green' tourism, are identified in the plan. The site is to be integrated within a regional vision for tourism and recreation. Together with the regional nature park Midden-Limburg (and other nature parks close by), the site should be promoted as a green region. The whole area could also be included in the promotional activities foreseen within the framework of the "Limburgse Natuur" campaign in 2004.



The Natura 2000 site already provides a total (direct and indirect) employment of 65 to 85 full time jobs.

"Tourism, recreation and nature management are genuinely improving living and working environments in Midden-Limburg".

("Regional vision of the regional platform" Midden-Limburg, june 1999, page 166)

How to realize the benefits ?

Zoning for nature and economy

The LIFE project gave important impetus to the restoration of the unique fauna and flora of this Natura 2000 site. The challenge for the nature vision plan (foreseen by the decree implementing the Natura 2000 network and the Flemish Ecological Network) is to clarify the various zones where nature conservation will take priority, and where specific types of socio-economic activities will be permitted.

Beside the nature reserves – where nature conservation is the primary objective – there will be multifunctional zones where the actual land and water users will be involved in a more nature friendly management, subsidized by the EU and the regional government. In other zones, more intensive economic activities could be allowed.

As well as placing conditions on the use of land and water, this approach should help to clarify the various development possibilities of the different sectors.

The structural development and promotion of nature-orientated recreation

An important trend that could prove to be beneficial to the site in the future is the growing economic importance of the “nature experience”. Several scientific studies have shown that nature areas can create substantial economic returns, partly dependent on the size and accessibility of these areas.

The creation of a tourism and recreation information centre (including a nature education component) could make an important contribution here. Improving the “visual accessibility” of the site (using information panels and signposted walking routes) would also be helpful. The site should also be

placed within a wider context, promoting and advertising it in a professional way as a tourism and recreation product with educational value.

The various organized nature walks and visits to fish farms that currently take place, already provide valuable examples in this direction. Visitors to the campsite could also be more actively involved in “nature conservation” in the future.

There is also an urgent need to integrate the area within a broader development vision. If properly promoted, the area can offer an important socio-economic added value. It would be a missed opportunity not to maximize the existing tourism and recreational attractions to the full in the future.

However, this development should not interfere with the conservation of important natural values, including closure to the public of large core areas.



Good zoning is required to provide both nature (here the tree frog) and economy with a good basis for optimal future development.

“At the moment I tend to direct my clients interested in cycling, horse-riding or walking to other sites, because they have been better developed as an attractive tourism and recreation product.”

*(Alfred Vandikkelen,
Het Laamhof – Hotel
for man and horse)*

The need for public and political support

Volunteers have been involved for many years in nature management, surveying activities (monitoring of species) and guided walks. Employees of a social workshop and those doing community service have also undertaken some management tasks within the framework of the LIFE project.

The information panels that have been installed during this project, and the further development of walking and cycling possibilities in the area, should help galvanise public support for the Natura 2000 area.

It is evident from interviews with some land owners that there is still inadequate information and awareness of both the restrictions and opportunities that Natura 2000 designation can bring. This inevitably creates unnecessary resistance towards these new developments. Although bilateral discussions and workshops with local stakeholders (organized within the framework of this IEEP/WWF study) have increased mutual understanding, important communication efforts will still be needed. The public inquiry for the designation of the Flemish Ecological Network will be a first important step.

The growing economic importance of the ‘nature experience’ is a site-related asset that could offer important socio-economic benefits for the area. Further development of the recreational tourism potential should, however, be linked to a wider vision for the region, and should be promoted professionally.





If **certain conditions** are met the Pond Complex can offer important socio-economic benefits.

Conclusion

Besides its exceptional natural value, which is of regional and European importance, the Natura 2000 site also has some important socio-economic advantages (employment and added value) based on existing economic activities in the area, namely fish-breeding, agriculture, camping, forestry and passive recreation. The total site-related receipts amount to about € 2,700,000, with around € 1,000,000 indirect receipts.

At present, job opportunities created on the site are about 50 to 60 FTE (full time equivalent including part-time and seasonal jobs), or 60 to 85 FTE if off-site employment and indirect employment are taken into account.

Moreover, the activities related to nature conservation performed by the authorities and several NGOs have a socio-economic added value. Employment opportunities, as well as an improved “nature experience”, benefit the

local population and visitors. A “restored” nature area (together with the other neighbouring areas) can play an important role in the regional economy in the future.

However, urgent inputs are necessary in order to develop in a sustainable way the fish breeding activities, agriculture (cultures and pastures) and tourism (cycling- and walking paths, high-quality camping adapted to the natural environment, organized nature excursions, etc), based on an appropriate zoning concept for the region.

In addition, there is a need for proper planning, management and public access, combined with the provision of targeted information (related to the restoration, management and conservation of nature) and considered tourism promotion. The result would be to create broad public support and offer important economic and social benefits from the site.



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This project was financially supported by the European Commission.

