



*Summary*  
**Nature Balance 2006**

**Milieu en Natuur  
Planbureau**



## SUMMARY

*During the last fifteen years the effects of government policy and the increasing pressure on space in the Netherlands have, on balance, led to a gradual reduction in natural and landscape diversity.*

**Landscape** *The open character of much of the Dutch landscape has been eroded. The countryside is becoming increasingly urbanised. Some areas are acquiring an industrial character, while others are assuming a parkland appearance.*

*Over the last fifteen years the built-up area has expanded by more than 20%. Less has been built in the areas subject to a restrictive policy than elsewhere. About a quarter of the land area of the Netherlands is affected by visually intrusive housing developments, noise barriers along motorways and railway lines, greenhouse complexes and trading estates. Views of the landscape are particularly disrupted because much has been built alongside or near motorways, blocking off once open panoramas.*

*The character of many landscapes is becoming increasingly parklandlike is due mainly to the changing use of farms and the construction and extension of recreational facilities. Over the last fifteen years, 30% of farms have been converted to purely residential use. In the same period, the number of holiday homes rose by 40% and the number of golf courses has almost doubled. Horses have made a comeback to the landscape, which is now home to an estimated 400,000 'recreational' horses.*

*One of the factors that makes the Netherlands an attractive place to live, work and relax, now and in future, is its green quality. An important factor is the proximity of accessible areas of characteristic landscapes and habitats. At the same time, this quality is vitally important for creating an attractive business location for international companies.*

*The Dutch value their landscapes, and rate almost all landscapes above average in quality. But people are worried. About 60% of all those living in the National Landscapes and 65% of young people between 8 and 18 years of age are concerned about the future of nature and the landscape.*

**Nature** *In the period 1990–2005 about 50,000 ha of land were reclaimed for natural habitats and wildlife, despite the expansion of housing, employment and infrastructure. Habitat quality has improved as a result of improved environmental conditions, a more favourable landscape structure and better land management. Successes have been achieved, for example in the river floodplains. But the physical and environmental conditions have not yet improved enough to prevent Dutch nature becoming less diverse, or to halt the*

*decline in numbers of many plant and animal species. Characteristic species, in particular, are doing poorly; the more common species are doing well.*

*The Netherlands contains a number of internationally unique delta ecosystems of moderate climates and has an international obligation to maintain this biodiversity. The Dutch contribution to the EU Natura 2000 network of protected areas consists mainly of large water bodies, marshes, dunes and areas of inland drift sand.*

*The 'conservation status' (Birds and Habitats Directives) of a large number of species and habitats in Natura 2000 areas is still unfavourable. Moreover, the European Union, and by extension the Netherlands too, has set itself the target of halting the decline in biodiversity by 2010. However, in the last fifteen years many plant and animal species have declined in number, despite nature conservation policies. The target is therefore unlikely to be met by 2010.*

*Apart from these international obligations, the Dutch themselves think nature conservation is important. Memberships of nature conservation organisations tripled between 1990 and 2005 and now more than 15% of all households are members. About 2.5 million households make donations for nature conservation or animal protection. The number of volunteers has also increased.*

*Looking back on the last fifteen years, we can conclude that local developments sometimes have considerable spatial ramifications at the regional level, and thus have an impact on nature and the landscape. An example is the construction of commercial and industrial estates, which make up 40% of all new building. These developments are often uncoordinated and take little account of nature conservation and landscape interests.*

*The smallest spatial and administrative scale that is appropriate for directing and coordinating biodiversity and landscape policies are the provinces. A lesson from the last fifteen years is that the provincial governments have not always been able to reverse undesirable trends that they themselves have set in motion, for example because they have not updated local land use plans or failed to set concrete landscape policy goals. The revised Land Use Planning Act and the Rural Areas Investment Budget now give the provincial governments new tools to work with.*

*The observed gradual erosion of the diversity of nature and landscapes can only be halted if:*

- the provincial governments succeed in effectively steering and coordinating the planning and design of the physical environment, and*
- public decision-making on physical development takes more account of the irreversible, long-term impacts on nature and the landscape.*

## The quality of rural areas

### *Spatial policies have curbed urban development in open areas*

For fifty years central government has pursued policies to protect open spaces, for example in the national buffer zones. Policies have also been effective in the areas covered by a restrictive policy (Figure 1). These are in regions where development pressures are high, including the Green Heart and parts of the Utrechtse Heuvelrug (the wooded area to the east of Utrecht). Without the restrictive policy these areas would have seen considerably more building development.

The national buffer zones again feature in the latest national spatial planning policy, the National Spatial Strategy. However, the Strategy also states that development will be geared more than before to transforming the national buffer zones into relatively large green areas with a variety of leisure and recreational opportunities.

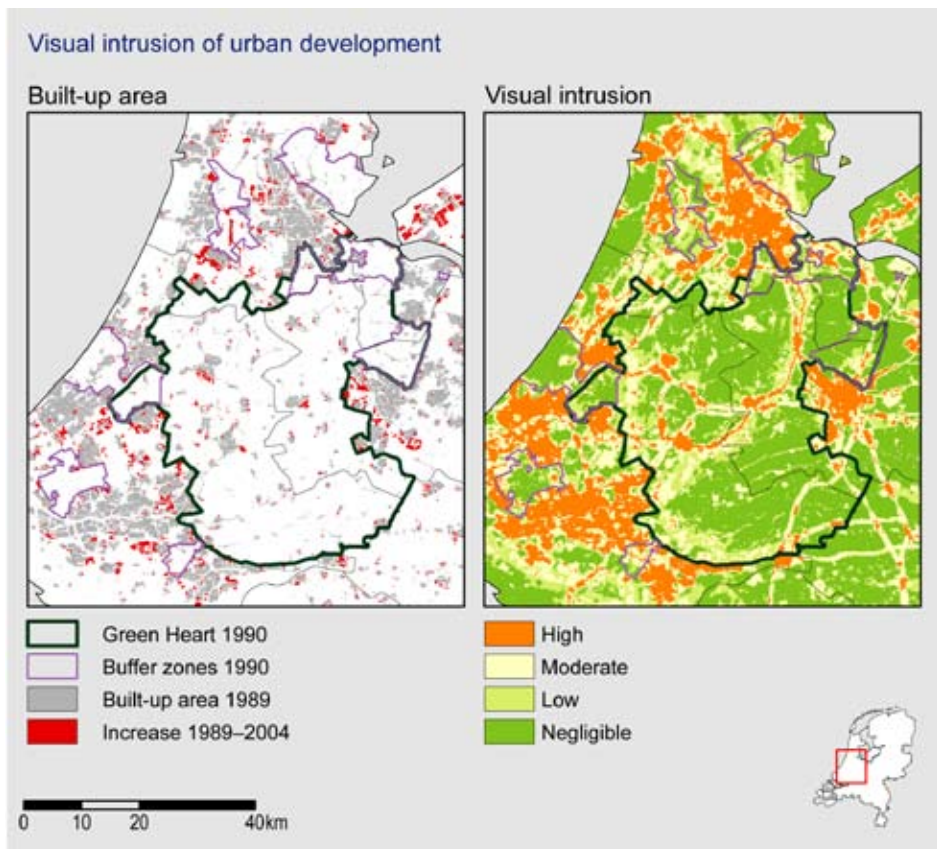


Figure 1 Less has been built within the area of the Randstad subject to a restrictive policy than outside it. About a quarter of the Netherlands is affected by visually intrusive urban development (source: adapted by NEAA from Statistics Netherlands data and LGN5).

Although the restrictive planning policy has prevented new development from encroaching completely into the open areas, it has not succeeded in fully resisting urban development in the 'restrictive areas'. The pressures for expanding urban development have increased, while resistance from the agricultural sector in the countryside has waned. The restrictive policy has not always been equipped to deal with such an imbalance.

The built-up area has expanded during the last fifteen years by 61.000 ha. In the process, the open character of many landscapes has been eroded and about a quarter of the land area of the country is now affected by visually intrusive urban development (Figure 1). This is caused not only by new housing development, but also by noise barriers along motorways and railway lines, and commercial and industrial estates. Expansion of the area under greenhouses also contributes to the feeling that the Netherlands is acquiring a more urban character, particularly in open landscapes. The large and concentrated nature of new greenhouse complexes only strengthens this impression (Figure 2).

***The countryside is becoming increasingly uniform and urban in character***

During the last fifteen years the countryside has undergone a gradual change in use. Residential, employment and recreational uses are on the rise, at the expense of farming, giving the countryside an increasingly urban character. Some areas are being industrialised while others are assuming a parkland character. The major causes of these trends are the changing use of farms and the construction and expansion of recreational facilities.

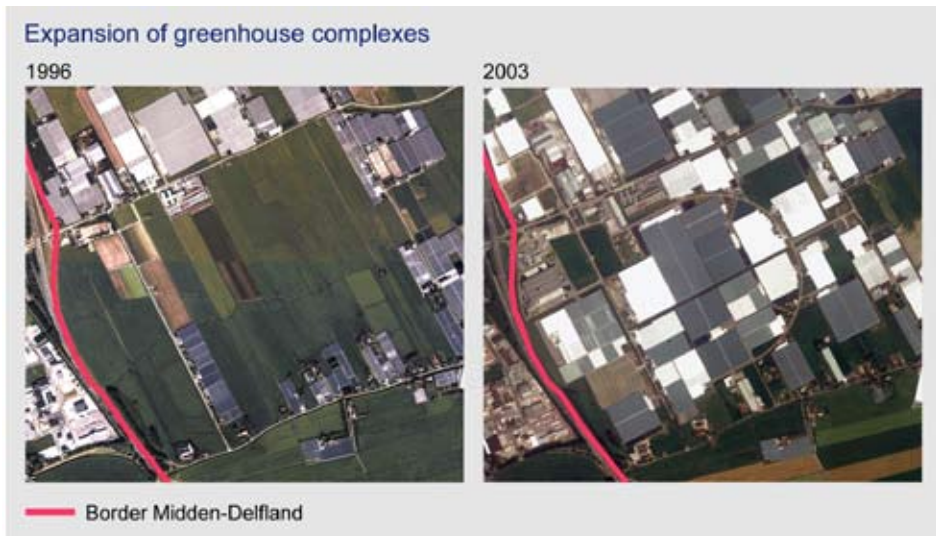


Figure 2 Large greenhouse complexes are sometimes built in areas subject to a restrictive policy (to the right of the red line), such as here in Midden-Delfland (photo left: Eurosense; photo right: AERODATA International Surveys).

Certain agricultural developments contribute further to this 'de-greening' of the rural landscape. Since 1990 the number of farms has fallen by about a third to 80,000 in 2005. Most of the land that has become available, has been bought by other agricultural enterprises, enabling them to improve their prospects by increasing the scale of their operations. During the last fifteen years agricultural enterprises have intensified and diversified, extending their range of activities, for example with the sale of regional products and tourist accommodation.

Farms that have chosen to intensify and scale up their activities have built large barns, livestock sheds and feed silos. The tree and bulb cultivation sectors are expanding in area and making considerable visual inroads into the landscape. These crops are not only expanding in the traditional regions in the provinces of Noord-Brabant and Noord-Holland, but also in the provinces of Drenthe, Overijssel, Flevoland and Limburg.

Despite these trends, the origins and history of the landscape remain clearly visible throughout large areas of the Netherlands. Potentially intrusive elements in the landscape mentioned by the Dutch public are buildings, greenhouses, overhead transmission cables, wind turbines and roads.

About 170,000 private land owners in the countryside own plots of land varying in size from 0.5 to 1.0 ha. Together they own 282,000 ha of land. In the last fifteen years many farms have been sold as private houses and in some places residential use is now the dominant activity. Sometimes the existing farm buildings are altered or converted, sometimes they are demolished and new houses built.

Over the last fifteen years the number of recreational amenities has risen sharply: the number of holiday homes has increased by more than 40% (Figure 3), the number of riding stables by more than 50% and the number of golf courses by 80%. Horse riding and golf are two of the fastest growing day recreation activities. The stable buildings, riding arenas, golf courses and other facilities required for these activities make a large impact on the visual amenity of the landscape.

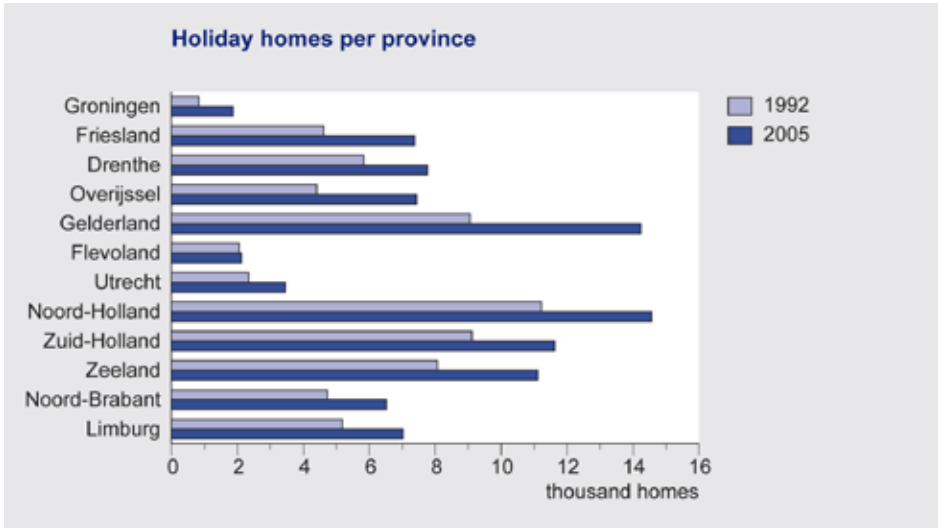


Figure 3 The number of holiday homes has risen in all provinces, but faster in the provinces which already had large numbers (source: Statistics Netherlands Statline, housing stock and construction).

#### ***The Dutch make keen and varied use of nature and the landscape***

People turn to nature and the landscape for all sorts of different activities. Green areas around the cities are intensively used. The area of wildlife habitats and recreational areas near the cities has on balance increased, but at a slower rate than the expansion of the population. The more accessible and attractive the countryside becomes, the more frequently it is used. Forests are considered to be the most attractive landscape type, even more than the sea, beach, dunes, lakes and the rolling farming landscape of Zuid-Limburg. By far the majority of walks taken by the Dutch are in woods and heathland areas.

Over the last fifteen years recreational use of nature and the landscapes has grown and is becoming increasingly diverse. Walking and cycling are still popular activities, but new activities like mountain biking and Nordic walking are gaining in popularity. Increasing numbers of people are participating in water-based recreation. Easily accessible and attractive green areas near home are heavily used.

The Dutch value their landscapes, and rate almost all landscapes at least above average in quality. People rate landscapes particularly highly when the skyline is free of visual intrusion, when the landscape is 'natural' and/or contains historic features, and there are no signs of urbanisation. The Dutch public are aware of the changes taking place in the landscape and many people are concerned about the future of nature and the landscape. About 60% of all people living in the National Landscapes and 65% of young people between 8 and 18 years of age are concerned about nature and the landscape.





People have very different motives for nature- and landscape-based recreation; sometimes nature is a décor, sometimes it is the purpose of the visit (photo: Michiel Wijnbergh Fotografie).

Memberships of nature conservation organisations tripled between 1990 and 2005 and at least 15% of all households are currently members (Figure 4). The importance the Dutch attach to nature and the landscape is also reflected in the financial contri-

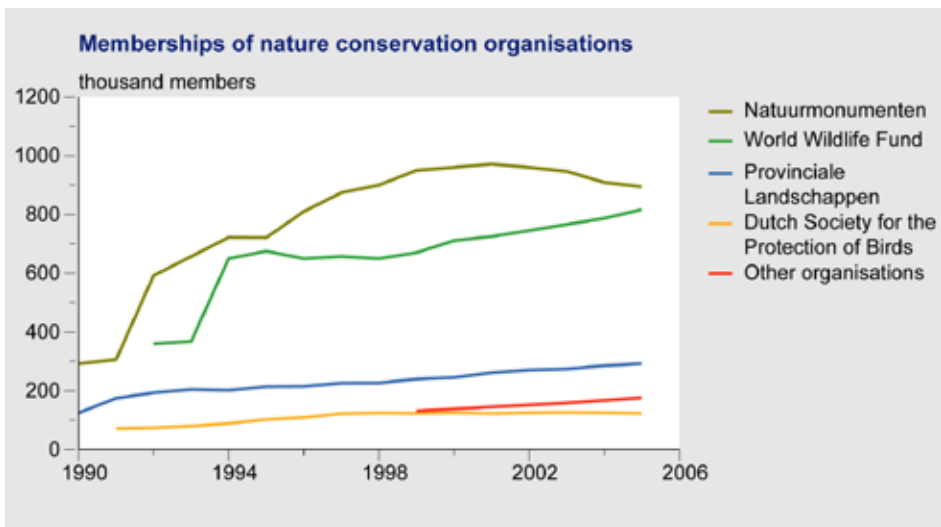


Figure 4 Memberships of some nature conservation organisations have risen sharply over the last 15 years (sources: Natuurmonumenten, De Landschappen, WWF, Dutch Society for the Protection of Birds).

butions they make. About 2.5 million households (37% of the total) make donations for nature conservation or animal protection. The number of volunteers has also risen during this period. For example, the numbers taking part in field surveys have increased from 15,000 in the early 1990s to 23,000 in 2005.

## Biodiversity

### *Biodiversity targets unachievable*

The European Union, and by extension the Netherlands too, has set a target of halting the decline in biodiversity by 2010. Despite a few positive trends, however, the loss of biodiversity in the Netherlands has not yet been halted. Many animal species (Figure 5) and as many as nearly half of all higher plant species in the Netherlands are declining in number.

Despite the implementation of nature policies, this target does not seem to be achievable in the Netherlands, at least not by 2010. Biodiversity, though, is receiving more attention in nature policy, for example in the process of adopting conservation objectives for the Natura 2000 protected areas. Whereas initially the National Ecological Network (NEN) was a policy line for acquiring and developing a coherent network of nature reserves and protected areas, recently more attention has been given to the ecosystem quality objectives for these areas.

Without a change in policy, some of the stated targets cannot be reached until (well) beyond 2010. Examples include species conservation policies, which depend in part

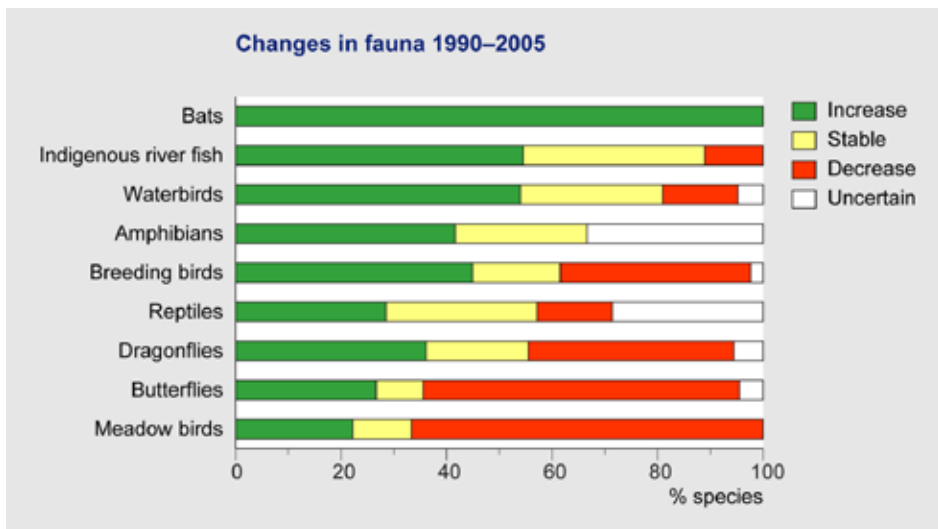


Figure 5 The loss of biodiversity has not yet been halted. The numbers of meadow birds and butterflies are falling sharply (source: NEM: private data management organisations and Statistics Netherlands).

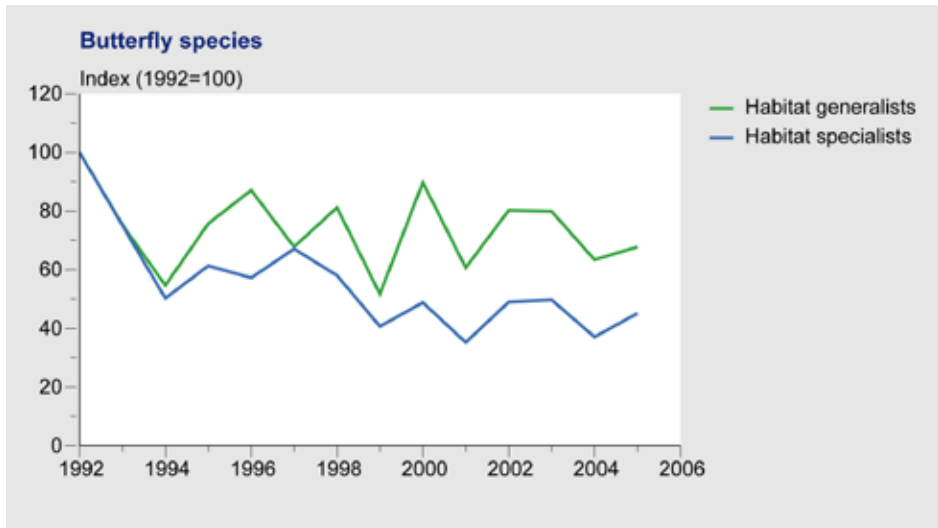


Figure 6 Populations of butterfly species with specific habitat requirements are declining faster than the habitat generalists (source: Statistics Netherlands, NEM).

on maintaining the farmed landscape and restoring lowered groundwater tables. The numbers of meadow birds are falling at a growing rate. Butterflies are also under severe pressure and the number of critically endangered butterfly species has tripled since 1990.

Dutch nature is becoming more uniform. Populations of birds, butterflies and reptiles that have specific habitat requirements have been in decline since 1992. Species that can live in several habitats are remaining stable or even increasing in number (Figure 6). The decline in numbers is especially marked among species that prefer nutrient-poor environments.

#### ***NEN: a living concept, implementation of some elements stagnating***

A general election is imminent, the fifth since 1990. Throughout this period some elements of nature and landscape policies have been continued by all governments. One of these is the policy on the National Ecological Network (NEN), the unbroken and consistent thread in Dutch nature conservation policy during the last fifteen years. Slowly but surely, the successes are becoming visible; from 1990 to 2005 about 50,000 ha of land has been reclaimed for new or restored wildlife habitats. These successes are not limited to an increase in area on the map, but also include action on the ground. The effect is most visible where improved environmental quality, landscape works and land management measures come together. An example is the improvement in fish stocks in the main rivers due to improved water quality and the creation of side channels.

The building of wildlife bridges, badger tunnels and other wildlife passages has reduced the degree of habitat fragmentation by infrastructure. Since 1990 about 440 such passages have been built. Surveys have shown that these wildlife passages are used by one or more species.

Additions to the area of this 'new nature' have stalled in recent years, especially the area in which landscape works are required to create or re-create wildlife habitats. More than halfway through the implementation period of the NEN, almost three-quarters still has to be completed. One reason for this is the slow progress being made with conservation management by private landowners. A few years ago the area target for subsidised conservation management by private landowners was raised considerably, at the cost of the objectives for land acquisition.

### ***European policy as stimulus***

Since the 1970s Dutch nature policy has been supported by European Union policies, such as the Birds Directive and subsequently the Habitats Directive. The Habitat Directive forms the basis for the European Natura 2000 network of protected areas. With the protected areas notified by the Dutch Government now approved by the European Union, the Dutch part of the Natura 2000 network has taken shape, at least for the terrestrial areas. The Natura 2000 areas comprise globally valuable ecosystems. In the Netherlands these are major water bodies, marshes, dunes, inland drift sands and heaths. These Natura 2000 areas lie almost entirely within the NEN. No Natura 2000 sites have yet been notified in the North Sea outside the coastal zone.

The objectives of Natura 2000 and national conservation policies prove in practice to be closely linked: they form a single network and complement each other. When the National Ecological Network is complete it will support the goals of Natura 2000, not only by increasing connectivity of habitats, but also by alleviating the effects of water table drawdown and other pressures on the environment. The conservation status of many species and habitats in Natura 2000 areas is still unfavourable.

### ***Environmental and land use conditions remain constraints***

Since 1990 the pressure on the environment in wildlife habitats and protected areas has decreased: acid and nitrogen deposition have fallen by 40% and 45%. In 2006, nature in the Netherlands is still exposed to high environmental pressures. The policies pursued have brought about some improvements, but at the present rate of improvement it will take some decades before the stated goals are achieved. The Natura 2000 targets are further off than the NEN targets because they are more sensitive to nitrogen deposition (Figure 7).

The connectivity of ecosystems and wildlife habitats remains a source of concern. Realisation of the NEN has led to some improvement in the land use conditions for target animal species, but for more than 130 fauna species the land use conditions will not or may not be sustainable, even after completion of the NEN. On the question of spatial connectivity, the Natura 2000 targets are more sensitive than the NEN targets. The

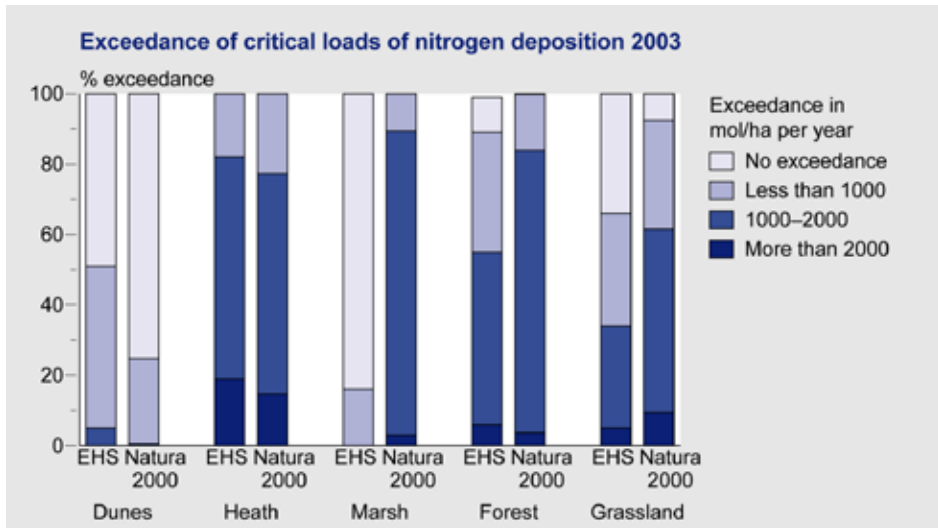


Figure 7 Most protected areas are subject to severe exceedances of critical nitrogen deposition levels, with regard to the policies for both the NEN and Natura 2000.

Government acknowledged this constraint six years ago in its white paper 'Nature for people, people for nature', and 'robust links' were proposed as a solution. So far, though, little or no progress has been made with these robust links.

Water table drawdown remains a persistent problem, despite various measures taken in the affected areas. In the last fifteen years, only 3% of the affected area has been fully hydrologically restored. When the areas in the categories 'limited recovery' and 'partial recovery' are added, the proportion rises to 17%. Central and provincial government are refocusing their efforts on restoring groundwater levels in specific areas. Restoring affected Natura 2000 areas and stream valleys can make an important contribution to the recovery of nature at the national scale.

## Administrative arrangements

### *Rural Areas Investment Budget puts pressure on provincial government*

The provincial governments have acquired an increasingly important role in the implementation of nature policies during the last fifteen years. For example, they have defined the boundaries of all NEN areas and prepared area plans which describe the desired ecosystem quality to be achieved within the NEN. Recently the provinces have been given a stronger central coordinating role in a number of areas, including the Natura 2000 protected areas, the restoration of lowered water tables and meadow bird protection. The National Spatial Strategy also gives them greater responsibility for landscape policy and providing green recreational areas.

This decentralisation of responsibilities will soon be financed under the Rural Areas Investment Budget (ILG). Making the ILG a success will depend on decisive decision-making and the availability of expertise at provincial government level. The available budget will also be an important factor. In the spring of 2006 the Verheijen Committee noted that the budget allocated by central government was insufficient to satisfy the aims of the provincial governments, including the NEN. Nevertheless, on the basis of the resources now available, the government and provinces have agreed to make a start with the first seven-year period of the ILG on 1 January 2007.

Another important factor in making the ILG a success is the scope and flexibility available to the provinces for making use of other instruments (e.g. land policy). A further point for consideration is the composition of the ILG budget. Water management is the key organising principle in rural planning and the provinces would have liked to have seen water policy included in the ILG, but this is not the case. It is important to involve water boards and municipal governments more closely in implementation, and possibly also free up some additional resources available to them.

#### *Heavy responsibility on municipalities*

The decentralisation of tasks goes beyond devolving power from central to provincial government; municipal governments are also being given more responsibilities. Traditionally they play an important role in planning policy by making and adopting local land use plans. Protection of nature and landscapes has to be incorporated into these plans. However, social change moves faster than the process of revising plans and outdated local plans have allowed local expansion of intensive farming in areas where the provincial government seeks to resist this to protect valuable landscape features. An analysis of developments in nature protection law has shown that the municipal governments can do more in this respect via local land use plans.

Several local plans at the municipal scale can together have a major spatial impact at the regional scale. An example is the construction of commercial and industrial estates, which account for 40% of the additional built-up area in the Netherlands. The planning and construction of industrial and commercial estates is often uncoordinated and takes little account of spatial quality.