



PBL Netherlands Environmental
Assessment Agency

LESSONS LEARNED FROM SPATIAL PLANNING IN THE NETHERLANDS

In support of integrated landscape initiatives, globally

Background Report

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Lessons learned from spatial planning in the Netherlands. In support of integrated landscape initiatives, globally.

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Summary of main findings

Integrated Landscape Management (ILM) is a process in which multi-stakeholder platforms manage the ecological, social and economic interactions between various parts of the landscape, in order to realise positive synergies between interests and actors or mitigate negative trade-offs. Spatial planning is seen as an important instrument that could support the ILM process.

This study illustrates the role of spatial planning in landscape management and development in the Netherlands, focusing on examples on national and regional scales. Driven by the need to improve multifunctional land-use planning and to overcome the limitations of a sectorally organised national government, an integrated way of spatial planning has been applied in the Netherlands since the mid 1980s. The first part of that period was characterised by a hierarchical governance style that gradually transformed into network-oriented governance. These two ways of governance were characterised by different types of spatial planning policies and, consequently, had a different impact on landscape management.

Lessons learned from hierarchical governance

This type of governance was top-down, supported by stringent legislative and financial instruments that made policy implementation relatively easy. It was directed to *development control planning*. This planning style was favoured by many spatial planners. Experience has shown that:

- A stable and long-term-oriented policy on spatial planning is seen as an important foundation for preserving spatial quality and maintaining regional economic stability.
- Long-term protection and promotion of landscape values raises awareness among citizens and entrepreneurs about the need for a more integrated perspective.
- Hierarchical planning on a national level controls the quality of large-scale projects of supra-regional importance.

But hierarchical governance also had its negative sides; it was criticised for its 'blueprint' way of planning which proved to be rigid in its response to political changes and societal needs.

During the 1980s, a new approach to spatial planning emerged: *Development planning*. Although still retaining most of the features of hierarchical governance, development planning was more sensitive to social dynamics, had decentralised implementation, paid attention to economics, included citizen participation and cooperation between public and private actors.

During the past 10 years many national governmental functions were decentralised to provinces, top down landscape planning policy was deregulated and network governance now determines spatial planning.

Lessons learned from a networking way of governance

The ambition of the Dutch Government's network planning style is to achieve shared responsibility on spatial quality, in terms of both finance and legislation. To facilitate the integration, all related legislation has been combined under one law: the Environment and Planning Act (*Omgevingswet*). Network governance in spatial planning in the Netherlands is

still a relatively new, dynamic and ongoing process; therefore, it is too early to draw hard conclusions on its success or failure. The current situation is that:

- the role of the national government has shifted from governing to stimulating and facilitating the planning processes of regional and local authorities, while remaining closely involved in managing supra-regional spatial developments.
- although citizens and NGOs play an important role in these projects, they are always supported by governmental measures, such as on funding, compensation or legislation.
- the number of integrated landscape management initiatives by citizens and private sector has increased over the past decade. Compared to the larger number of initiatives by the government in the days of hierarchical governance, there is still room for improvement. The new initiatives tend to cover a smaller scale or area.
- integral projects are inherently complex, which is why government authorities are continually trying to simplify rules and regulations and provide more transparency. This transformation requires the support of municipalities, potentially adding to their already increasing workload and responsibility.

Supporting landscape initiatives, on a global level

Both spatial and landscape planning are dynamic processes that, also in the Netherlands, anticipate on and adapt to the changes within society. Certain elements are key in supporting these changes. For example, a well-organised land registry (cadastre) that provides clarity on land ownership and facilitates processes such as land consolidation, spatial planning and land-related investments, all contributing to economic development. Recent decentralisation of spatial-planning-related policies have clearly put more pressure and responsibility on regional and local authorities. This requires sufficient funding and expertise for policy implementation. In addition, regional and local authorities should be able to create a level playing field for all stakeholders to participate in the planning process. As seen from the case of the Green Heart, stakeholders could set up their own platform to formulate shared ambitions and develop a landscape vision. In this way, they could become important participants in spatial planning discussions that facilitate a more inclusive planning process.

1 Introduction

1.1 A landscape approach to sustainable development

A growing demand for land, water and natural resources combined with human-induced climate change have put an increasing pressure on nature. Spatial planning plays an important role in managing the competing claims on often scarce resources and is commonly considered a role for the government and coordinated at the national level. During the past few years however, the landscape approach has been put forward as an instrument for promoting inclusive green growth by searching for shared solutions to many development challenges that converge on a landscape level. So nowadays globally, the landscape is increasingly seen as the spatial scale on which many stakeholders, from different sectors and from global to local, need to cooperate (Figure 1).

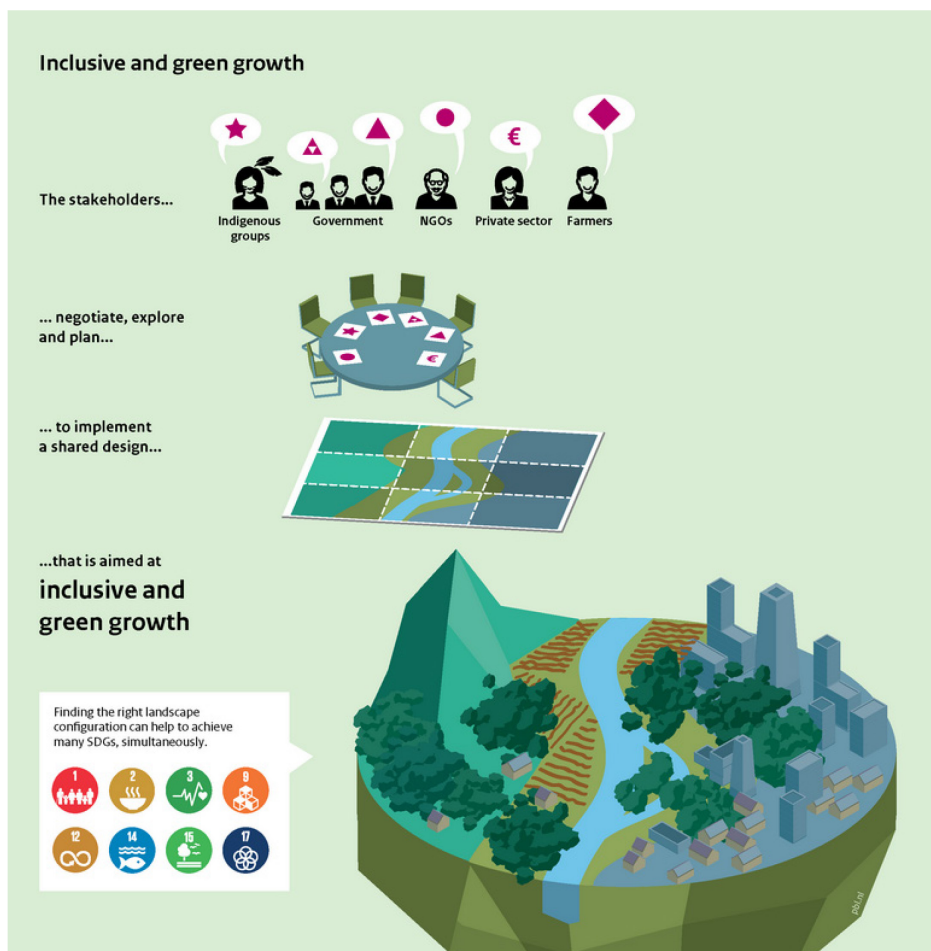


Figure 1. Inclusive Green Growth aims to achieve multiple sustainable development goals simultaneously by finding shared solutions at the landscape level (adapted from People and the Earth, PBL 2017).

A landscape approach aims to ensure the realisation of local level needs while also considering goals and outcomes important to stakeholders outside the landscape, such as national governments or the international community (Van der Horn and Meijer, 2015).

The spatial extent of a landscape approach is often determined by an issue, benefit or risk that is commonly acknowledged by different stakeholders in a certain area. Local balancing of competing interests, sharing benefits and mitigating perceived collective risks are prerequisites to achieving multiple agreed goals simultaneously. So similar to spatial planning, the landscape approach aims to find shared solutions. This requires local, regional and sometimes even international negotiations between many diverse stakeholders, including farmers, NGOs, indigenous communities and different levels of government. Creating an enabling environment that provides a level playing field for all stakeholders is still considered an important role for the government.

1.2 Goal of this study

This study forms the second part of a PBL research project on exploring Integrated Landscape Management as a potential means of achieving progress on multiple sustainable development goals simultaneously. The first part of the project looks at the potential of combining spatial modelling and participatory scenario development as tools to explore potential progress on those goals in three ongoing landscape initiatives, in Honduras, Ghana and Tanzania, which are supported by the Dutch Ministry of Foreign Affairs.

The main target audience for this study consists of policymakers and stakeholders involved in the landscape initiatives in partner countries of the Netherlands or via the Landscapes for People Food and Nature (LPFN) initiative, the NLandscape.nl platform and/or other integrated landscape programmes globally.

The study presents some insights derived from key moments and policy changes in the Netherlands and reflects on the challenges ahead, signifying that, also in the Netherlands, spatial and landscape planning are dynamic processes that anticipate and adapt to changes in society. The study discusses the landscape planning policy and practice of the last three decades, since its approach shifted from a sectorised to a more integrated approach. It focuses on two spatial scales: national and regional. After a short introduction of the context in this chapter, the study first focuses on the transformation of spatial and landscape planning policy on the national level (Chapter 2) and then it zooms in on the Green Heart region to see how these changes have influenced this region and how various stakeholders have anticipated on these developments (Chapter 3). It is not the goal of this study to provide a blue print for spatial planning across the world. Rather, by underlying the successes as well as the shortcomings of Dutch spatial and landscape planning practice, the study shares a number of lessons that could support and inspire policymakers, planners and stakeholders involved in integrated landscape planning initiatives globally, in their ambition to develop shared understanding among stakeholder platforms and to effectively implement their collaborative planning ideas into formal spatial planning processes (Chapter 4).

1.3 Integrated landscape management

New forms of multi-actor governance have emerged in the field of global sustainable development. Businesses, civil society, and engaged citizens increasingly collaborate in multi-actor initiatives and became 'new agents of change' where power and steering capacity is distributed among a plethora of public and private actors that collaborate in a network of institutions, on various levels. The concept of Integrated Landscape Management (ILM) centres around the processes of managing multi-stakeholder platforms (Figure 2). To build on and stimulate such multi-actor platforms, governments need to create the right conditions

for societal initiatives to develop, learn and deliver on public goals. The role of such an enabling and facilitating government involves: positioning on targets and objectives, creating the right infrastructure, rewarding frontrunners, setting dynamic regulations, choosing the right financial instruments for behavioural change, and organising monitoring and feedback.

ILM promotes a holistic approach where landscape is considered a scene in which various actors operate within their sectors, while being aware of and respecting other sectors, so to jointly improve the quality and sustainability of their shared landscape. There is increasing attention in global policy fora to the idea that by managing landscapes in an integrated way, it is more likely to achieve global sustainable development in the long term (CBD, 2014; UNCCD, 2017).

Integrated Landscape Management, regardless of the 'entry point' for action in a particular landscape or the community of practice, has five key features (Scherr et al., 2013):

1. Shared or agreed management objectives that encompass the economic, social and environmental outputs and outcomes desired from the landscape (commonly human well-being, poverty reduction, economic development, food and fibre production, climate change mitigation, and conservation of biodiversity and ecosystem services);
2. Field, farm and forest practices are designed to contribute to those multiple objectives;
3. Ecological, social and economic interactions among different parts of the landscape are managed to realise positive synergies among interests and actors or to mitigate negative trade-offs;
4. Collaborative, community-engaged processes are in place for dialogue, planning, negotiating and monitoring decisions;
5. Markets and public policies are shaped to achieve the diverse set of landscape objectives.

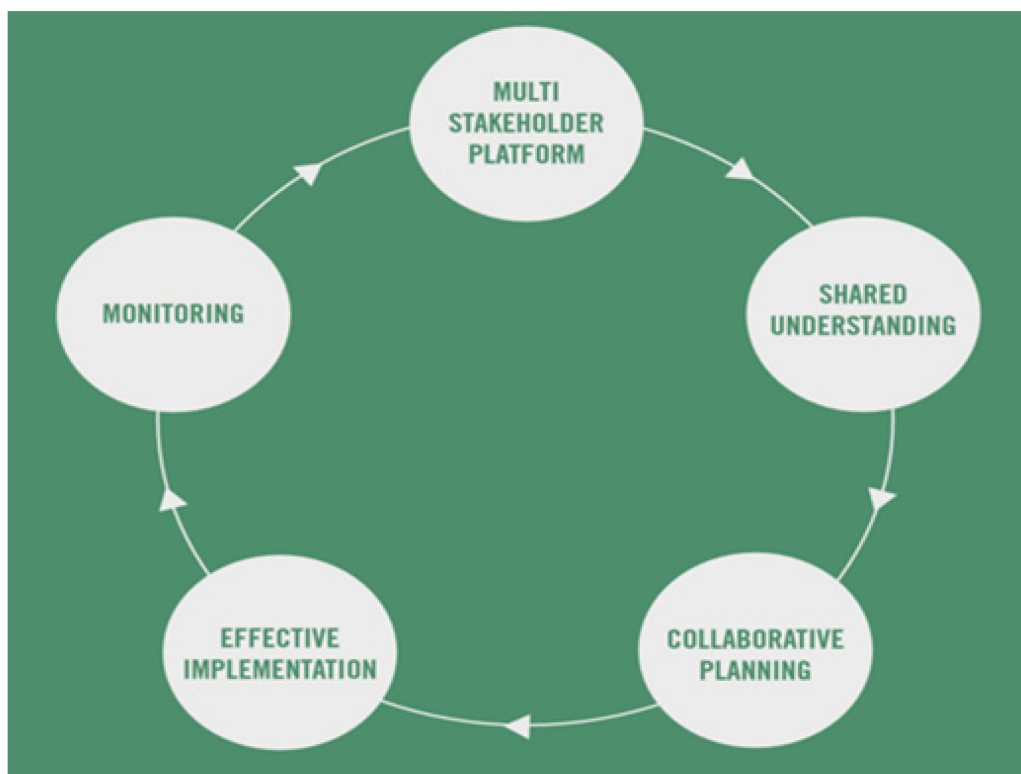


Figure 2: The cycle and elements that are part of Integrated Landscape Management. Source: Denier et al 2015)

Governments or involved stakeholders can help to lay a foundation for policy that supports ILM by taking three steps: 1) forming multi-stakeholder learning and advocacy working groups on ILM at national and sub-national levels, where appropriate, which include government and non-government actors; 2) reviewing the existing policy framework and enabling environment for ILM and 3) convening a landscape policy dialogue to identify key actions that government can take to better support ILM (Shames et al., 2017).

1.4 Landscape as a socio-ecological system

The term landscape can have many different meanings and here we highlight two extremes: (1) landscape as a spatial-perceptual meaning used by landscape planners and (2) landscape as multi-stakeholder driven approach to territorial organisation, used for instance by nature conservation organisations. The way that landscape is treated in spatial planning policy and in practice, therefore, is twofold: it is an object as well as an approach, which could be confusing as those two concepts also form an inseparable unity.

The word 'landscape' originates from the Dutch language. It entered the English language in the late 16th century, derived from the Middle Dutch word 'landschap' denoting a picture of natural scenery (Lorzing, 2001). In the five centuries that followed the paradigm landscape has had various meanings: physical, spatial, social, cultural, historical, aesthetic and/or perceptual. In many languages landscape has a dual interpretation, meaning 'land, area or region' as well as the 'visual picture of view' (De Jonge, 2009).

In recent years though, the word landscape is getting yet another meaning: it is often used by nature conservation organisations to name their integral and multi-actor approach to development and management of an area. The word landscape is in that case used as a metaphor to describe 'a socio-ecological system that consists of natural and/or human-modified ecosystems, and which is influenced by distinct ecological, historical, economic and socio-cultural processes and activities' (Denier et al., 2015). In the Netherlands current discussions about spatial planning policy are underlying the dilemma of landscape as a consequence or as a guiding principle for the spatial developments (NOVI, 2017).

In the European Landscape Convention (ELC) landscape is defined as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. One can argue that in the ELC 'landscape' is almost the same as 'space' in spatial planning (Schroder and Washer, 2010). Landscape 'planning' in the ELC 'means a strong forward-looking action to enhance, restore or create landscapes' (Article 1f). 'Planning' is seen as one of the three government measures aimed at the protection, management and development of landscapes. As such, it applies to larger scale interventions in space, such as land allocation or land consolidation, intensive agriculture or nature development or reconstruction. No surprise that landscape planning is often considered to be at the crossroads of spatial and land use planning (Schroder and Washer, 2010). Some would argue that a landscape approach provides spatial planning with the human dimension (De Jonge, 2009). Similar to spatial planning, from which it derives a part of theoretical background, landscape planning involves integral and long-term thinking and acting in favour of the public domain (Friedman, 1989).

Landscape is also considered as 'the field where humans and nature joust for a time' (Nassauer, 2012) and 'where we speed up or retard, divert the cosmic programme and impose our own' (Jackson, 1984). The consequences of human actions are visible all around and can have impact from local to global scale. This was the reason for cherishing of

landscape protection for a long time. In more recent years, the paradigm of protection of the fabric of the past is shifting towards the management of future change (Fairclough, 2008a). These days, the landscape is an important selling point in the economic sectors of recreation and tourism. And finally landscapes often relate to emotions as for many people, the smells and colours of a landscape are an important part of their most cherished childhood memories.

Presented views of landscape show all kinds of meanings that word landscape can have. To summarise: landscape is the interface between nature and culture and can be seen as physical object, as a perceived image, an approach, or a principle. As we will see in the text to follow, all these meanings were related to the period in the history of landscape planning development, planning styles, as well as political and social trends, and sometimes even a fashion.

2 Spatial planning in the Netherlands

The Netherlands consists of mainly flat land. Apart from the regions in the eastern and southern extremities which are a bit higher, the majority of the territory is lying between -6 and 20 meters above sea level. Since the beginning of the last millennium, settlers, farmers, city dwellers and engineers have created a system of dykes, barriers and locks defending the low parts of the land from the water (Figure 3). As Voltaire (1694–1778) said: 'God shaped the world, except the Netherlands. That he left to the Dutch themselves.'

Landscapes in the Netherlands are all man-made cultural landscapes. They are often considered to represent important public goods and are seen as a living, dynamic heritage (Lörzing 2001; Janssen, Pieterse and Van den Broek 2007; Pedroli, Van Doorn and De Blust 2007).



Figure 3. Simplified map of the geography of the Netherlands

The current land use in the Netherlands is characterised by the considerable prevalence of agricultural areas (65%), almost the smallest percentage of forests in Europe (about 10%) and water (about 5%). In addition, 3,8% of 'nature' areas have also been created by man, often by transforming the agricultural landscape into areas for nature development with the highly mono-functional goal of protection of biodiversity.



Figure 4. Anna Paulowna polder in the province of North Holland dating from 1846 (photo: Paul Paris)

Figure 4 shows a typical lowland landscape, with the prevalence of agricultural land, the village of Kleine Sluis somewhere in the distance, a canal in the middle, as well as a mixture of crop fields, pastures and colourful flower production fields for which this country is renown worldwide. The image perfectly illustrates the four rules of Dutch spatial planning school : purpose of usefulness, economy of resources, meaning of place and clarity of form (Reh et al., 2006). Everything seems in perfect order with clear boundaries between urban and rural, neat and beautiful. However, behind this achievement there is a labyrinth of rules and regulations, policy instruments and subsidies. Creating this apparent perfection was not simple and it is the result of many successes and failures.

2.1 The need for spatial planning in the Netherlands

It is not by chance that the lessons learned presented here are derived from the Dutch experience. With about 504 residents per square kilometre, the Netherlands is after Malta the second most densely-populated country in Europe (<http://www.clo.nl/indicatoren/nl2102-bevolkingsgroei-nederland->). In an economic sense, the Netherlands has been in the top 20 of the most prosperous countries of the world for decades (Van der Horst 2007; Needham 2007). The Netherlands, though small, is one of the

world's largest exporters of agricultural products. The combination of population density and prosperity has led to extreme pressure on scarce space in this small country, making spatial planning a bare necessity to manage various (sometimes competing) spatial claims. Yet another reason for drawing lessons from the Dutch experience is that landscape has been playing an important part of the more than a hundred-year-long tradition of spatial and land-use planning, combined with the development of the cadastre¹.

Textbox 1: The Dutch way of managing the landscape



View of the Vliet with the Lepelbrug in the distance. Penseeltekening van Hendrik Thier, 1768 (Archive Delft)

'Already since the year 1000, we have been controlling the landscape, starting with the draining of swamps. We subsequently built dykes around them, which is how the first polders were created. The next step was to accelerate the accretion of fertile marshes outside the dykes, to subsequently surround them with dykes and to drain them with sluices. And finally we came up with something that could not be imagined anywhere else in the world: the creation of polders by pumping out seawater from an enclosed sea area. This is how our national identity came about: making that highly productive country. That is what our painters and cartographers started to record in the 16th century. Poets wrote about it. The elite wanted to live in those areas. People became euphoric. Foreigners who came here spoke of a hypnotic experience: sliding through the flat landscape in a barge, with that low horizon of a thousand windmills.' (Adrian Geuze, NRC.next ['Parijs, Londen, die koesteren hun landschap'](#))

Further on, there are two concepts that originate from the Dutch language and have been adopted internationally: landscape (which was explained in the previous section) and polder. Both words have to do with the physical and social aspects of planning and management of the land. The Dutch word 'polder' has made its way into many other languages around the world. Literally, it means 'land reclaimed from water', but in the common policy practice in the Netherlands it has also acquired a metaphoric meaning. The shortage of land suitable for agriculture forced people in the low parts of the Netherlands to create new polders. To build a polder is a complex task which requires cooperation, negotiation, tolerance and continuous maintenance, which is only possible if all those living in the polder agree to work together.

¹ The Netherlands' Cadastre (Kadaster) collects and registers administrative and spatial data on property and the rights involved. Doing so, Kadaster protects legal certainty. Kadaster is also responsible for national mapping and maintenance of the national reference coordinate system. Furthermore, Kadaster is an advisory body for land-use issues and national spatial data infrastructures.

That is why the so-called 'polder model' became a metaphor for a culture of negotiation and consensus in this country.

The Netherlands became known for its knowledge and technical skills in coping with complex spatial problems, and planning has always been seen as a convenient instrument to deal with this complexity. During the more than one hundred-year-long tradition, spatial planning in the Netherlands has gone through various stages and seen several planning styles.

2.2 From hierarchical to network governance in spatial planning

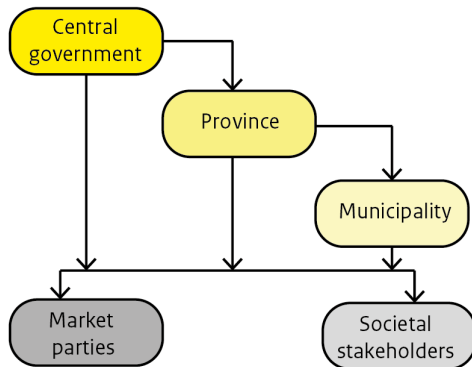
In the years after the Second World War, planning involved a top-down, hierarchical perspective, with a focus on government-led land-use planning. In the Netherlands, there were then—and still are today—three levels of government: national, provincial and municipal. In the area of spatial planning, each of these levels involves specific tasks. One of the most important planning instruments is land use. Land-use planning uses zoning maps and land-use regulations that offer the government the possibility of preventing undesirable forms of land use. This form of planning, which uses prohibitions, is called development control planning, with an emphasis on control (Van der Valk, 2010). Spatial plans of that period were considered blueprints.

Most government administrations in the Netherlands, at that time, were organised according to individual sectors (e.g., agriculture, environment, rural development, water, etc.) and jurisdictions. That multifunctional land use planning could only start after 1985 had to do with the power relationships between various ministries (Pols, 2015). In 1985 for instance, landscape planning related to rural area and was under the jurisdiction of the former Ministry of Agriculture and Fishery, nature and recreation were part of the former Ministry of Culture, Recreation and Social affairs, while spatial planning was under the former Ministry of Housing, Spatial planning and the Environment. This led to many problems, and spatial planning as an interdisciplinary science has been trying to overcome this situation by working cross-sectoral. It was clear that cooperation between the ministries was needed.

By the end of the 1980s, it was already clear that traditional practice of national government-led land-use planning no longer provided an answer to the forces of the contemporary fluid and extreme mobile network society. By the end of 1990s, development control planning encountered growing resistance from society, which led to some of the nationally applied polices being accompanied by financial compensation. The more flexible development planning (*onwikkelingsplanologie*) style was invented by the national government. This planning style, although still containing many elements of hierarchical governance, was taking into account the dynamics within society, decentralised implementation, attention for economics, citizen participation, more attention for concrete projects than for abstract plans, and the cooperation between public and private actors (Van der Valk, 2010).

The period of hierarchical governance yielded important large-scale achievements of landscape and nature conservation: the National Ecological Network (NEN) and the national buffer zones (most of them still in place, today). Also, the 20 selected landscapes characterised by combinations of typical Dutch cultural and natural elements (the so-called national landscapes), were established in that period. For a while, it looked as if landscape planning was formally and firmly integrated in national spatial planning policy, but this did not last long.

Hierarchical steering



Network steering

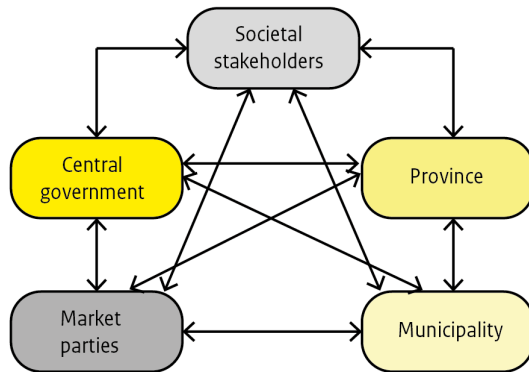


Figure 5: From hierarchical governance (left) to network governance (right) (Source: adapted from Dijk, 2006)

During the 1990s, the role of provinces in policy-making and planning projects increased due to decentralisation of responsibilities and tasks from the national to provincial governmental level. The provinces started acting as mediator between national policy design and local policy implementation and gained a permanent role in planning projects crossing municipal border. Citizens, NGOs and market parties were more and more involved in the planning processes, which gradually led to the network way of governance (Figure 5). Besides realising desired land uses, landscape quality became planning objective as well, which considerably changed the way that land use and land consolidation plans were made.

Although integrative projects have been part of the Dutch planning tradition for a longer period of time, it was clear that cooperation between the ministries was needed. In 2006 this resulted in the new Spatial Memorandum (Nota Ruimte, 2006), which was collaboratively published by four ministries, and included the concept of integration as an objective of the national government (Ministry of Housing, Spatial Planning and the Environment, 2006). To implement this objective, 'integral spatial development' was introduced as a new planning concept. The integral spatial development had to deal with several planning issues, including integration, transparency, openness, and participation (Louw et al., 2003; Boelens and Spit, 2006).

Since spatial planning policy became more integral, formerly strongly protected nature areas were gradually opening to recreational needs of citizens, and nature protection was broadened to cultural landscape development. In the years to come, the tension between preserving and developing landscapes is being acknowledged as a social and physical challenge, which required policy and practice to work together. Provinces were actively involved in integrated planning processes, including (strategic) acquisition of land and high risk investments in development projects (Van Straalen et al., 2015). As the selected level for optimal integrated planning, the Dutch regional planning authorities started many integrated spatial planning projects in which integration was expressed as the main objective, in order to guarantee the success of projects. But as a result of economic setbacks, many of these projects have come to a standstill, mainly due to their large-scale, time-consuming, risky, and therefore costly character.

2.3 Integration in spatial planning

Generally, integration can be understood in many different ways; for example, as integration of stakeholders, initiatives, vertical or horizontal integration of sectoral activities, or integration of disciplines. In spatial planning, it can take various forms and also be understood differently by stakeholders (Van Straalen (2012)). When assessing the meaning of integration in spatial planning, there is also a difference between how it is understood in the planning literature and in planning practice. In interviews with several stakeholders conducted by Van Straalen (2012), it was shown that the meaning of integration differs between stakeholders involved in the same planning process or at the same planning level, making it harder for them to cooperate, integrate policies, or implement policies in an integrative manner. Concepts such as coordination, cooperation, cross-border projects, synchronisation of policies speak more to the mind of interviewees and might more easily spark integrative planning processes than the broad concept of integration itself.

One of the examples of implementation of integration in spatial planning can be seen in the concept called 'integrated landscape development' (*Integrale gebiedsontwikkeling*). In integrated landscape development, parties such as provinces, water boards and project developers are looking for ways to reinforce the various functions of an area, such as agriculture, nature, water and industry, with the use of various subsidies and regulations. The reason is often an assignment; the elaboration of this assignment can lead to improvement and / or more integral use of the other (nature) functions. Integrated landscape development also presumes a smart combination of budgets and regulations in a certain area.

Text boxes 2 and 3 show two successful examples of integrated landscape development projects: the Oostelijke Vechtplassen project southeast of Amsterdam and the 'Room for the River' project near Nijmegen.

TEXT BOX 2: Integrated landscape development: Quality improvement of the Oostelijke Vechtplassen

The Oostelijke Vechtplassen form a beautiful area where nature, cultural history and recreation are constantly intertwined.



However, the quality and management of nature, water and public space has been insufficient for years. This was the reason that the province of North Holland initiated a new project for quality improvement of nature and landscape, water, recreation, tourism and the living environment in the Oostelijke Vechtplassen. As many as 21 organisations

have signed this regional agreement. The projects involve an investment of over EUR 77 million.

In addition to the restoration of existing areas, 800 hectares of new nature and fauna passages will be constructed to connect nature reserves. The water quality in a part of the lakes will be improved and the large dredging problem in the Loosdrechtse Plassen will be tackled. All this should lead to an economic boost for the water sports sector. Moreover, the aim is to address the quality of public space and public facilities in the area.

The signatories to the Area Agreement are: the provinces of North Holland and Utrecht, the municipalities of Wijdemeren, Stichtse Vecht and Hilversum, Waternet, Amstel, Gooi and Vecht Water Board, Plassenschap Loosdrecht, Region Gooi and Vechtstreek, Dutch Society for Nature Conservation, Federation of Agriculture and Horticulture, HISWA Holland Marine Industry, RECRON (Dutch association of recreation entrepreneurs), KNWV (Dutch watersports association), Vereniging Verenigde Bedrijven Boomhoek, Vechtplassencommissie, Tourist Kanobond Netherlands (TKBN), Belangenvereniging Eerste Loosdrechtse Plas (BELP), Vereniging Kievitsbuurten. A separate statement of support is signed by the Platform Recreatie en Toerisme Wijdemeren and ANWB.

Source: <https://www.metropoolregioamsterdam.nl/artikel/20171206-gebiedsakkoord-zet-in-op-kwaliteitsverbetering-ooste>

Integral landscape development can be carried out in different ways and levels of participation:

- The government is in the lead and seeks support in the area.
- Developing plan together with stakeholders in the area.
- The partners in the area take the initiative and develop a plan.

Searching for synergy between spatial functions requires an approach where cooperation is central. In recognition of each other's interests and the willingness to cooperate, new solutions can emerge. The integral approach may entail extra costs, but also many additional social benefits. Sometimes, it directly benefits the parties that incur the costs, but sometimes it benefits other parties as well, or the benefits will only become clear in the (near) future. This unequal distribution of benefits is a known obstacle, as a result of which the desired combinations of functions were not always realised. Formal ways of cooperation and alternative financing constructions can sometimes remove this obstacle. Nowadays, the term integral landscape development is combined with other terms for a similar approach, such as 'innovative governance' and 'governance arrangements'.

TEXT BOX 3: Integrated landscape development example from the 'Room for the River' programme: Waalsprong project

The global climate is constantly changing. As a result of this, the rivers in the Netherlands have increasingly larger amounts of water to transport. In order to prevent flooding in the near future, the Dutch Government is changing the course of more than 30 locations along the rivers IJssel, Lek, Meuse and Waal, are part of the Room for the River project. <https://www.ruimtevoorderivier.nl/english/>

The Nijmegen Room for the Waal project is one of the largest and most awe-inspiring of the projects being realised within the framework of Rijkswaterstaat's national Room for the River flooding risk management programme. The river Waal near Nijmegen forms a sharp bend and a bottleneck. At times of high water, the river could not cope with the volume of water, causing flooding in the years 1993 and 1995. To prevent this from

happening again and in order to protect the inhabitants of the city against the water, the dyke has been moved 300 metres inland and a 4-kilometre-long secondary channel has been dug. Fifty households had to be relocated as a result of the flooding risk management measures. This created an island in the Waal and a unique urban river park with lots of possibilities for recreation, culture, water and nature. Three new bridges connect the island to Nijmegen-Noord. The work was finished in spring 2016.



As a result, the water level of the river has dropped by 34 centimetres. By widening the river, the risk of Nijmegen and the surrounding upriver area becoming flooded, today or in the future, has been considerably reduced. The solution is far-reaching, yet sustainable and safe.

Facts and figures:

- Project area: 250 hectares
- National budget: EUR 358 million
- Earthwork: 5.2 million cubic metres
- 50 buildings demolished
- 34 centimetres drop in the water level of the Waal

Special components of the Room for the Waal river project:

- Secondary channel: 4 kilometres long, 200 metres wide, 8 metres deep measured in respect of the ground level of the flooding plain, 14 metres deep measured in respect of the height of the quay and the dyke
- Waterproof cut-off wall to prevent the seepage situation in Lent from worsening, 1.6 km long, 20 metres deep, 80 cm wide
- Unique island in the Waal with potential as an urban river park in the centre of Nijmegen with room for living, recreation, nature and culture
- Existing railway bridge columns: a reinforcing wall around the three columns of the Spoorbrug (railway bridge dating from 1880); 23 metres deep and 1.5 metres wide
- New dyke as well as a new quay of 1.2 kilometres in length
- Three new bridges for access to and from the Veur Lent island
- Archaeological and cultural-historical activities in the oldest city of the Netherlands with traces from Roman times, the Middle Ages, the Renaissance and World War II

3 Recent developments in national spatial planning

Each spatial planning strategy in the Netherlands had its own high time, and followed and adjusted to political, economic and societal context. The welfare state with a centralised spatial planning system supported by 'hard' (financial and regulation) instruments gradually transformed into a decentralised planning system with 'soft' (guidelines and stewardship) planning instruments. To explain this better, we describe recent developments on two spatial scales: national (this chapter) and regional, focusing on the example of the Green Heart (Chapter 4).

Most of the current Dutch spatial planning policies have been decentralised. Landscape planning, with the exception of cultural heritage, Natura 2000 and the National Ecological Network, is deregulated and managed by individual provincial and municipal authorities. Although it is still too early to evaluate the consequences of the most recent policy changes, the comparative maps presented in Figures 6 and 7 provide an indication of potential future impacts on landscape.

National landscape policy in 2009

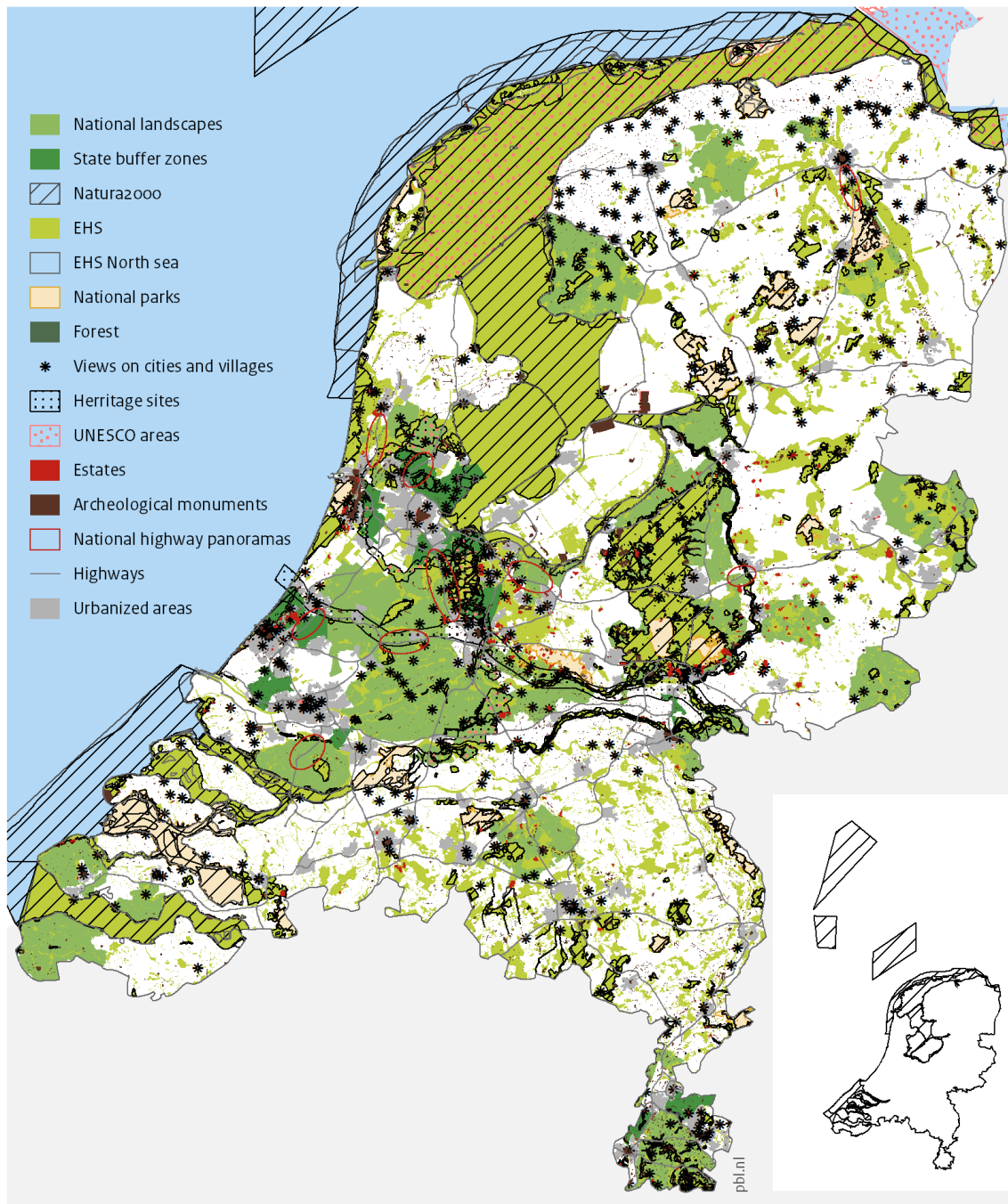


Figure 6. Landscapes of national importance in 2008 (PBL, in preparation)

Figure 6 shows all protected areas of the Netherlands in the 'glory days' of national landscape protection in 2008. At that time, 160 Natura 2000 areas (EU nature policy), NEN, 20 national parks, 20 national landscapes and 10 national buffer zones were delineated and strongly protected, and 9 national highway panoramas were roughly indicated (for the definition of these categories, see the appendix). Next to that cultural heritage sites such as UNESCO protected areas, estates, archaeological monuments, protected views on city and villages were also protected.

National landscape policy in 2018

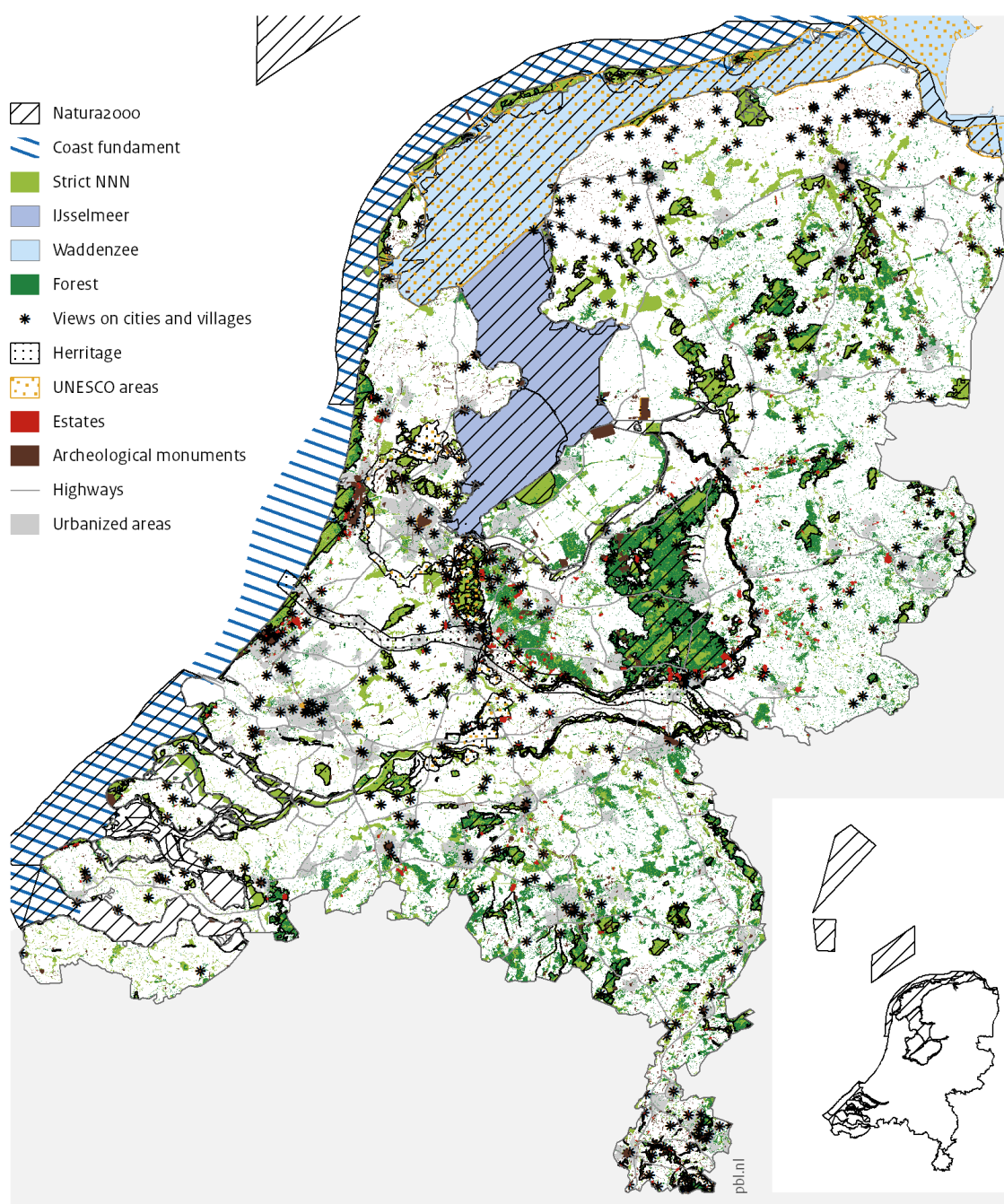


Figure 7. Landscapes of national importance in 2017 (PBL, in preparation)

In 2018, after decentralisation of the landscape policy parts of the Natura 2000 and some aspects of the Nature Network Netherlands remained under national protection (for instance financing). Deciding about the extensions of the natural areas and the way that they will be developed and designed were delegated to the provinces. Protection of the part of the landscape that previously belonged to the cultural heritage stayed unchanged. National landscapes, state buffer zones and highway panorama policies have been deregulated. National parks stayed in the national policy as areas with specific qualities, but more as branding, but without specific protection regime. This is due to the fact that National parks are the core areas within NNN and Natura 2000 and therefore are already protected. The

text box 4 shows how landscape policy deregulation worked in the case of national buffer zones.

In the past years, each of the 12 provinces has created its own spatial development vision (*Provinciale ruimtelijke structuurvisies*) which, as Figure 8 shows, very much differ in their approaches to landscape planning.

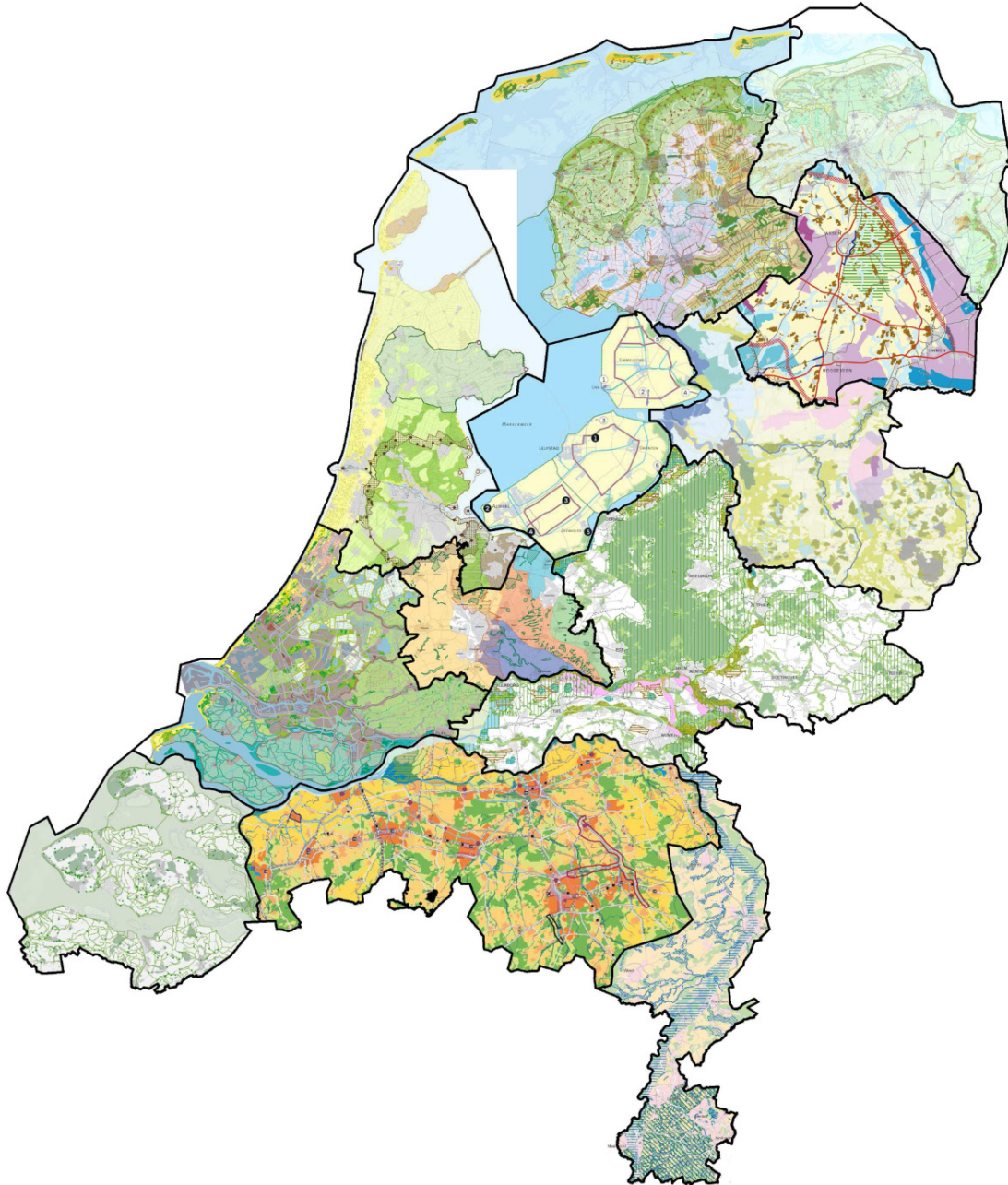
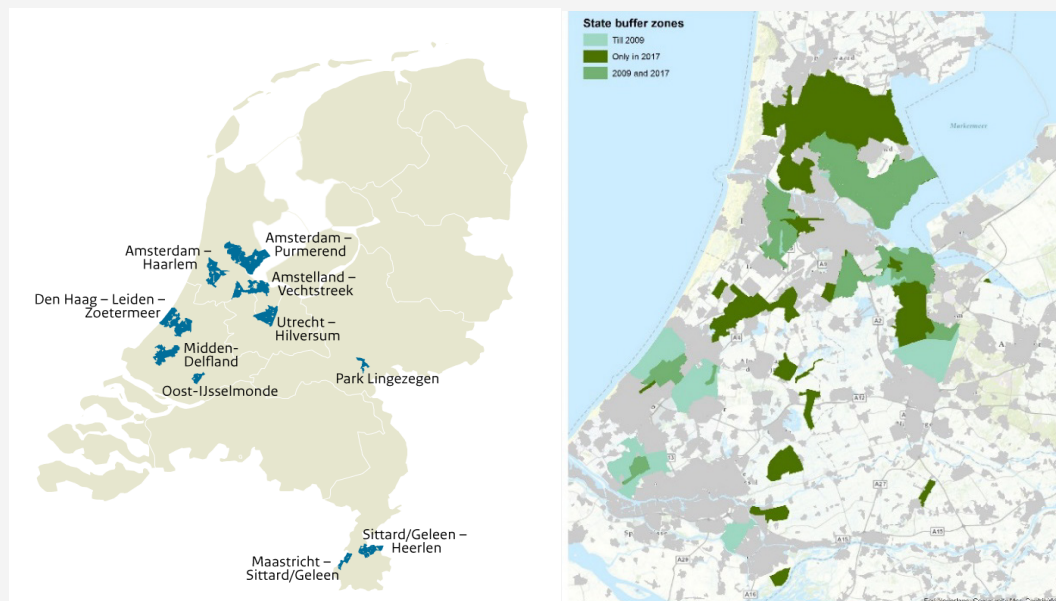


Figure 8. Maps assembled from the twelve Provincial vision plans (*Provinciale ruimtelijke structuurvisies*) by the national advisor for landscape in 2015 (<https://www.collegevanrijksadviseurs.nl/adviezen-publicaties/brieven/2015/11/12/landschapsbeleid-provincies>)

Text box 4: National buffer zones

In Dutch spatial policy, the national buffer zones (NBZs) are regarded as the greatest landscape protection success because of their continuity, successful combination of protection and development, and strong planning safeguards.

NBZs have been included in the national planning agenda, for more than 50 years. They were first mentioned in a forerunner of the regularly published series of national planning strategies, the planning document on western Netherlands (*Nota Westen des Lands*, 1958). Until 2009, NBZs have been an essential tool in national planning; first as necessary separations between the country's largest urban areas. Later, parts of the NBZs were transformed into large recreational areas. The policy style changed, too: from mono-functional buffers that prevent cities from expanding too far towards each other to multi-functional areas for agriculture, nature development and recreation. In the last part of that period, even the construction of buildings for recreational purposes was allowed under the condition that they would align with the character of the surrounding rural landscape. First, seven buffer zones were created in the Randstad to prevent Amsterdam, The Hague, Rotterdam and Utrecht from expanding into one ribbon-shaped super city. Two additional buffer zones were later envisaged for the urban conglomerate in the south-eastern Netherlands, encompassing the cities in South Limburg (e.g. Maastricht, Heerlen and their suburbs). In 2008, the last buffer, park Lingezegen, was introduced in the Province of Gelderland.



Left: 10 national buffer zones in 2011. Right; changes in delineation of NBZs, since the decentralisation of landscape protection policy (Source: left: PBL CLO; right: PBL, in preparation)

NBZs show diversity in terms of geography and land use. Some of them encompass large areas with mixed forms of land use, villages, strip developments and greenhouses. By contrast, others include wide-open agrarian landscapes and vast stretches of water. Some NBZs come closer to the more familiar idea of a regional park, with park areas, woodlands and forests.

The oldest and most completed NBZ was Midden Delfland (between the Rotterdam Area and Delft). It was the only NBZ for which a special law was passed in 1977 (*Reconstructiewet Midden Delfland*) guaranteeing the legal and financial support for a 'complete make-over' of an area of over 5,000 ha. Because of this approach, this area so

far has remained open, while urbanisation has expanded all around it. Similar to Green Heart, Midden Delfland found itself in a horseshoe between the permanently growing cities and turned from being rural area to 'land inside the city' Tummers (1997).

In the later period, the strategy to keep buffers free from substantial urbanisation was supported by the creation of heavy 'green areas', which were supposed to keep all future urbanisation at bay. The example is the buffer between Amsterdam and Haarlem, which was to be converted into the park area Spaarnwoude, and parts of the park Lingezege in North Brabant.

It is important to know that success of the NBZ was due to the crucial combination of strong degree of planning protection, and the land purchases by national government. All NBZs were delineated and taken over in the provincial spatial plans. It was the long-term reliable national policy and public landownership that moved urban development into other directions and created another reality: *what is green has to stay green* (Pols and Bijlsma, in Van der Wouden, 2015).

Until 2011, the national government continued to pursue the goals of protecting the NBZs through a restrictive building policy in combination with land acquisition for recreational use. In that period, building in NBZs was only permitted under the 'No, unless' principle; in other words, only if it contributes to the recreational value of the zone.

Since landscape policy has been decentralised to the provinces, the delineation and the level of protection of the NBZs changed, considerably. Some provinces kept the old protection regime completely as it was (Limburg), some even extended it (North Holland), while others (South Holland) removed restrictions on building in large parts of the old buffer zones, even allowing new housing construction.

The last still valid national spatial planning document brought in 2012 is National Policy Strategy for Infrastructure and Spatial Planning (SVIR, see Figure 10). This document marks the final moment of the long period of government involvement in landscape planning. In the policy strategy, the national government took infrastructure, logistics and economic competitiveness as the main own responsibilities and delegated urbanisation and nature policy to the provinces and municipalities. The map 'Cultural-historical and natural qualities of national importance' (Figure 9) presents the small parts of the landscape that remained under the concern of the national government.

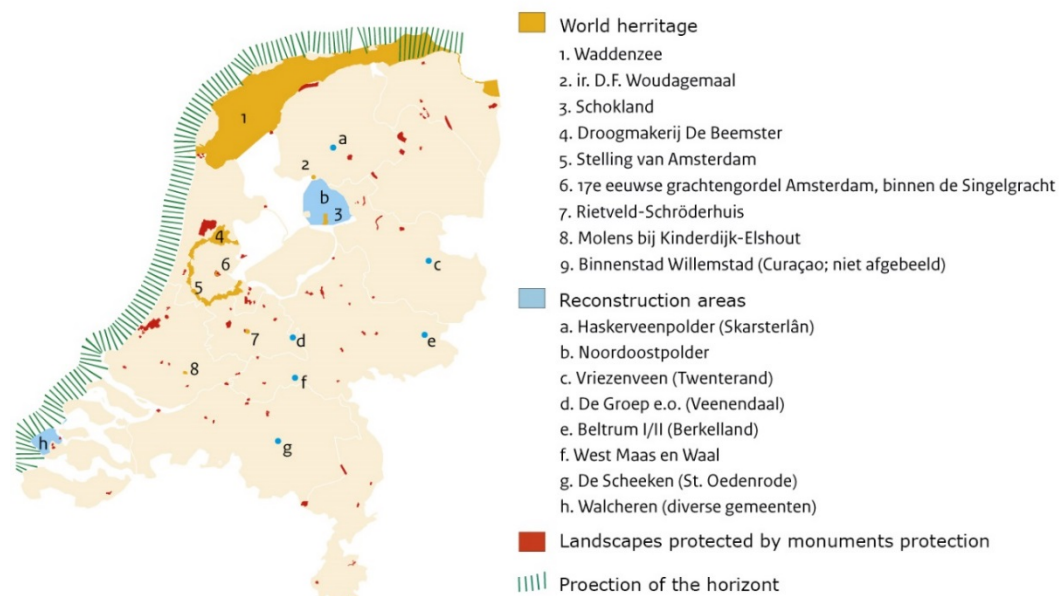


Figure 9. Cultural heritage and natural qualities of the national importance, 2012 (CLO indicator 1339, 26 October 2012).

The map of National Spatial Structure, shown in Figure 10, reflects the current situation of landscape planning in the Netherlands: landscape is subordinate to urbanisation, mobility and economic developments. The integration of landscape—as it is desired in the European landscape convention (ELC), and ratified by the Netherlands in 2005—is at very low level in SVIR. At the same time, it is generally acknowledged that large spatial transformations are expected due to arising spatial claims from, for example, energy transition, climate change adaptation, urbanisation, and growing mobility. Lack of national involvement in managing spatial claims that exceed regional levels, leads to uncertainties and worries about the future of the landscapes in the Netherlands. A large amount of criticism emerges from the perspective of nature protection society, as Dirx (2015) cynically states, there is no reason for grief, because in fact not too much has changed compared to the past. In Dirx's opinion, landscape policy never existed and never had its own strong instruments, and the national policy had already been decentralised and deregulated, long before the establishment of the SVIR (Gerritsen et al., 2015).

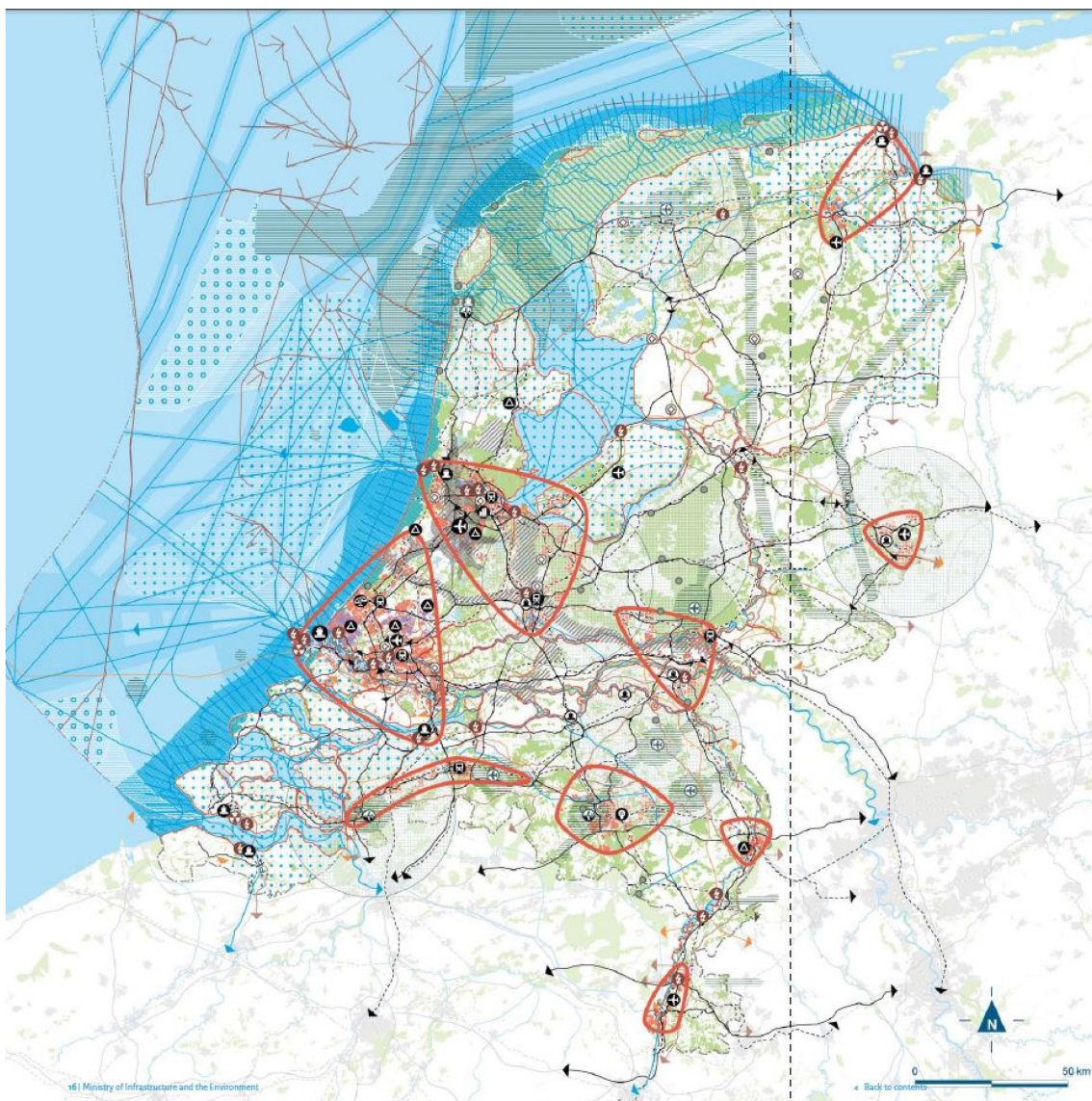


Figure 10: Map of the National Spatial Structure from SVIR.

3.1 Nature versus landscape protection

Ever since the landscape policy came into being, the government has been struggling with the question of what landscape really is and what it is supposed to be (Dirx, 2015). This also had to do with the constant changes in the definitions of landscape in policy documents, often being mixed with nature. But, while nature reserves have been purchased and developed by the national and regional authorities, landscape as a whole stayed unprotected. Natural areas are spatially delimited and have a strong legal status. But with the landscape it looks completely different, it is everywhere and therefore hard to protect. Those were the reasons why nature development policy has become a success compared to landscape development policy.

Nowadays the landscape policy is partly deregulated and partly decentralised. But the government's role in nature development remains undiminished; it is still under the national government's responsibility, putting in place an effective legal framework for nature conservation and making sound international agreements. National government and the provincial authorities are jointly investing in the development of the National Ecological Network.

The 1990 Plan for the Preservation of Nature (*Natuurbeschermingsplan*) introduced the concept of the National Ecological Network (*Ecologische Hoofdstructuur*, EHS) as system of uninterrupted dry or wet nature zones where building activities are forbidden, except for the very special purposes. The emphasis is strongly on protection of biodiversity in the narrow sense. This concept is criticised as outdated, as in the NEN, the landscape is not seen as a cultural phenomenon (Wagenaar, 2015). Also urban areas are not taken into account and the primary concern of the NEN remains nature and biodiversity protection in rural areas.

The latest national nature protection policy is presented in the document 'The Natural Way Forward: Government Vision 2014'. In this document, the government has sketched its new strategy on managing the natural environment up to 2025. The key aim of the vision is to bring about a change in thinking: nature should not be confined to nature reserves, but should be at the heart of society. Accordingly, people should care about nature in protected areas, but also about their natural surroundings closer to home. The government also presents some ideas of how this could be realised: farmers are creating wild-flower margins around fields; more urban buildings are being designed with 'green roofs'; there are ecological noise barriers along motorways; local residents are maintaining communal gardens or local nature areas; nature is being given space to flourish along rivers, which also protects the surrounding area against flooding; groups of farmers and locals are joining forces to preserve valuable landscapes; multinational companies are working to reduce their products' ecological footprint; tourism businesses are working on conservation projects with nature conservation organisations.

In the past, nature policy has traditionally focused on protecting nature from society, while this new vision aims to recruit society in the strengthening of natural assets. According to the Government Vision, the interests of nature and the economy can be complementary and serving one can benefit the other. 'Second Nature' is a programme that invites civil society organisations and private individuals to share their ideas on environmental stewardship: combining conservation with responsible social and economic use. However the presented approach broadens the concept of 'nature' and brings it closer to the meaning of landscape and integrated management, the problem is that its focus lies on the areas where nature is protected, not the landscape in the terms of ELC.

3.2 Spatial planning 'new style'

Environmental legislation as it currently stands is scattered and spread over numerous other laws. There are separate laws relating to soil, construction, noise, infrastructure, mining, environment, preservation of historic buildings and sites, the natural environment, spatial planning and water management. This scattering of legislation gives rise to agreement and coordination issues, as well as reduced accessibility and usability for all users. To simplify this situation the national government currently works on the new Environment and Planning Act (Wro, expected to enter into force in 2021) and National Environmental & Planning Vision (NOVI, to be completed after the Act and would replace the SVIR). The Environment and Planning Act (Wro) defines how the spatial plans of the national government, provinces and municipalities are to be effectuated. This new Act seeks to modernise, harmonise and simplify currently distributed rules and integrate them into one legal framework. Land-use planning, environmental protection, nature conservation, construction of buildings, protection of cultural heritage, water management, urban and rural redevelopment, development of major public and private works and mining and earth removal will all be brought under one act.

The new Wro obliges national, provincial and sometimes municipal governments to develop an environmental strategy, an integrated and coherent plan for their physical territory. By integrating strategic planning instruments into the environmental strategy, by agreeing on multi-sectoral programmes with more implementation-focused policy tasks, and by coordinating implementation, the government hopes to improve the efficiency of the planning process. The intention is to achieve a balance between continuity and certainty on the one hand and flexibility on the other.

The National Environmental and Planning Strategy (NOVI)² is one of the six core instruments³ of the Environment and Planning Act. NOVI promotes the coherence of policy for the physical environment. As a result, in new visions various sectoral areas –water, environment, nature, use of natural resources, cultural heritage, and traffic and transport—are combined and connected. In the Environment and Planning Act, participation plays an important role. Many insights and views were obtained from other tiers of government and civil-society partners during the process prior to the initiation memorandum. The dialogue with other tiers of government and civil-society organisations, lobbyists and knowledge institutions is continued in the follow-up process for the preparation of the NOVI.

The initiation memorandum of the NOVI is quite different from its predecessors. The document presents thirteen layers of the physical environment and selects the priorities that governments should focus on, in the form of four strategic policy tasks: a sustainable and competitive economy; climate-proof and climate-neutral society; a future-proof and accessible living and working environment; and high-value living environment. In the following three phases of the development of NOVI these strategic tasks will be elaborated in more detail, solution routes will be explored, a joint course will be determined, and a more comprehensive approach will be developed.

² The new Environment and Planning Act ('*Omgevingswet*') will enter into effect on 1 January 2021. It is combined with a single vision for the living environment in the Netherlands: the National Environmental Planning Strategy (NOVI). With the publication of an initiation memorandum in 2017 ('*De opgaven voor de Nationale Omgevingsvisie*'), the Cabinet took a first step towards the realization of the NOVI. In that memorandum, the Cabinet – after due consultation with its partners – identified the strategic tasks for its environmental planning policy.

³ The six instruments are: the environmental planning strategy, programmes, general rules, environmental by-laws, environmental permits and project decisions.

In the NOVI approach, the layers of the physical environment are not shown on maps, as was the case in previous national planning documents. Instead, they are shown on a hypothetical area. The landscape is a part of the fourth strategic policy task and is also mentioned often as an important part of the other three tasks.

NOVI - National Environmental and Planning Strategy

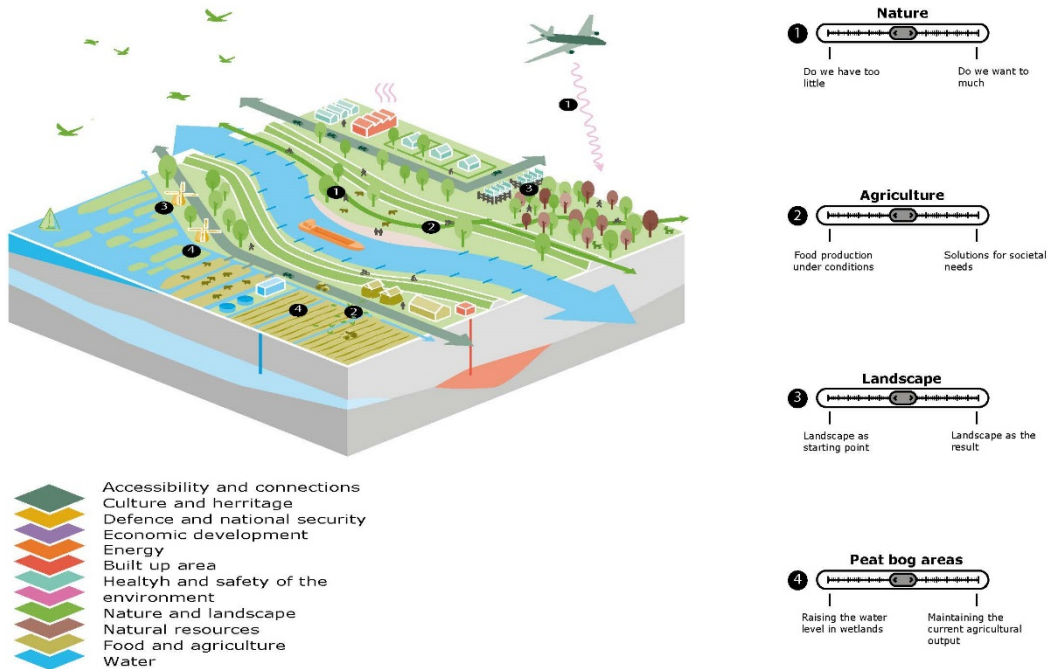


Figure 11. NOVI: strategic task: towards a high-value living environment

The main question is of the fourth strategic task (Figure 11) is: how can the values offered by the natural environment be maintained and utilised? This requires making choices with regard to the following issues:

1. Agriculture: choosing between food production under certain conditions or solutions for societal needs.
2. Is there a shortage of nature, or are expectations too high?
3. Taking either the landscape or the result of developments as the starting point.
4. Raising the water level in peat grasslands or maintaining current agricultural output.

As the NOVI suggests, it is up to stakeholders to decide in which direction they would move the scale and the model would show the spatial consequences of their choices⁴

Although being integrated and multilevel, the NOVI model approach is currently causing many discussions in the professional and political circles which are used to formal planning tools such as mapping and calculations. Both the NOVI and the government vision, The Natural Way Forward, consider the landscape level as an important scale for planning and negotiation on spatial developments. Considering landscape as a common good is positive, but also creates uncertainty about who is responsible for it. Therefore, concerns about the future of Dutch landscapes are rising, putting it again on the national political agenda.

⁴ See for instance the animation on <https://www.rijksoverheid.nl/onderwerpen/omgevingswet/nationale-omgevingsvisie>.

4 The case of the Green Heart of Randstad

Green Heart a predominantly rural landscape between the four largest cities Amsterdam, The Hague, Rotterdam and Utrecht in the western part of The Netherlands, that form a ring shaped metropolis called Randstad (Figure 13). The term 'Randstad' was probably used for the first time around 1930 by aviation pioneer and first director of KLM Royal Dutch Airlines, Albert Plesman⁵. The green and open space within the city ring got the name 'Green Heart' and was officialised in 1958 in a number of reports, starting with '*Ontwikkeling in het westen des lands*' (development in the west of the country).



Figure 12. Location of the Green Heart in the Netherlands.

The Green Heart covers an area of roughly 1800 km². It is surrounded by the metropolitan areas of Amsterdam (to the north, 1 million), The Hague (to the west, 875 000), Rotterdam (to the south, 1.25 million) and Utrecht (to the east, 600 000). In January 2015, 726,541 residents lived in the 40 Green Heart municipalities, a tenth compared to the number of inhabitants in the metropolitan part of the Randstad area.

Today, the agricultural sector uses around 67% of the land surface of the Green Heart and earns its money mainly from the production of dairy, tree and horticultural products, the latter mainly concentrated in and around Boskoop. Ten per cent of the income in the Green Heart is earned with this primary agriculture (Rabobank 2012). The proximity of the ports of Schiphol and Rotterdam, processing and marketing centres and good infrastructure via road and rail provide good conditions for the export of agricultural products.

⁵ Plesman, however, had his reasons for speaking of one integrated city because he wanted one national airport instead of the local airports of Amsterdam, the Hague and Rotterdam.

Although The Netherlands is one of the most populated countries in the world, Dutch cities are in comparison with the European and World metropolis quite small (the capital Amsterdam has roughly 880.000 inhabitants). The Randstad concept therefore had not only spatial element (as Albert Plesman saw it) but, also a much more important economic one. By joining the population and economic forces of the four cities and presenting the region as one large city the government was hoping to give Randstad the prominent place on the map of Europe and make it economically competitive with other European regions. The Green Heart was seen as an important contribution to the quality of living in the densely populated urban area. In addition to its agricultural function, the Green Heart was also seen as a place of recreation for the citizens in the Randstad and of conservation of the green open space that is so characteristic for the Dutch polder landscape.



Figure 13. Impressions of the landscape of the Green Heart.
Source: PBL (upper and lower left), Natuurmonumenten-Ferry Siemensma (lower right)

The Green Heart, similar to the rest of the Netherlands, a man-made cultural landscape, mostly consisting of polders, below sea level. Seen from the air, it looks like a large pasture, interwoven with larger or smaller waterways and scattered small cities and villages. Looking closer it shows heterogeneity, made up of very different relatively old landscape types, the oldest of which date back to the medieval times (around 1100 AD). The Green Heart is still rich in monuments of cultural heritage. Especially in the peat cultivation landscapes and along the river dykes, where historical strip settlements (road or dyke based) are abundant, we can still find hundreds of well-preserved historic farmhouses. Windmills, sometimes grouped in clusters of three or more, arguably make up the most striking landmarks in the Green Heart, by now, all of them have lost their original function as pumping engines (Figure 13).

In spite of urbanisation developments in past years, in a few areas of the Green Heart still come across as the archetypal Dutch landscape, calling to mind the landscape paintings of old masters, such as Ruysdael and Van Goyen.

In the following sections, we underline the differences in landscape approach affecting the Green Heart during the two planning periods: hierarchical and network planning.

4.1 Green Heart during the hierarchical planning period

The reasons why the Green Heart was announced as the iconic Dutch landscape were partly historical and partly strategic. Since the concept appeared, policymakers, especially those at the former Ministry of Housing, Spatial Planning and the Environment (VROM), were eager to protect the area as a green open space for agriculture and recreation and prevent its further urbanisation. In 1999, the ministry published a report on the development programme for the national landscape of the Green Heart (*Ontwikkelingsprogramma nationaal landschap Groene Hart*), which paints an idyllic future for the Green Heart, where agriculture, nature, recreation and culture are in harmony and reinforce each other. This political intention was repeated in the Fifth National Policy Document on Spatial Planning (*Vijfde Nota Ruimtelijke Ordening*, 2002). Although the research about the landscape appreciation of citizens and the number of recreation activities in the open landscape of the Green Heart has shown to be the lowest compared to other areas in the country (Goosen, 2007), protection of landscape openness in Green Heart received a prominent place in spatial planning strategies. Gradually, the value of the Green Heart became broadly accepted in the society. So, persistent national policy had positive effects on the appreciation of the Green Heart in public opinion and by the organisations involved. In 2005 The Council for Rural Areas (*De Raad voor het Landelijk Gebied*) which advised the government, placed the Green Heart along with eight other areas in the premier league of national landscapes because of its rarity and importance to the national identity.

Over the course of time, economic development inevitably led to the expansion of urbanisation, and threatened to fragment the landscape of the Green Heart. To prevent that, a series of national policies would lead to a seemingly vague limitation of the area allocated for urbanisation.

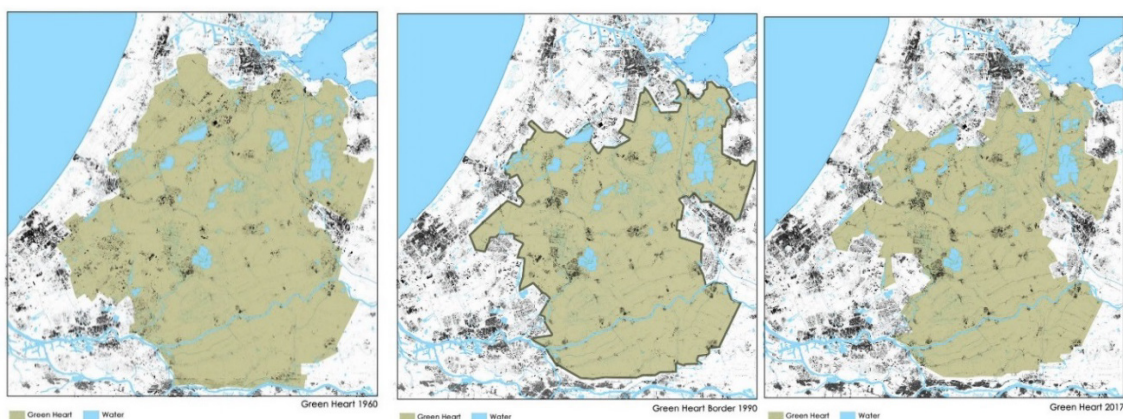


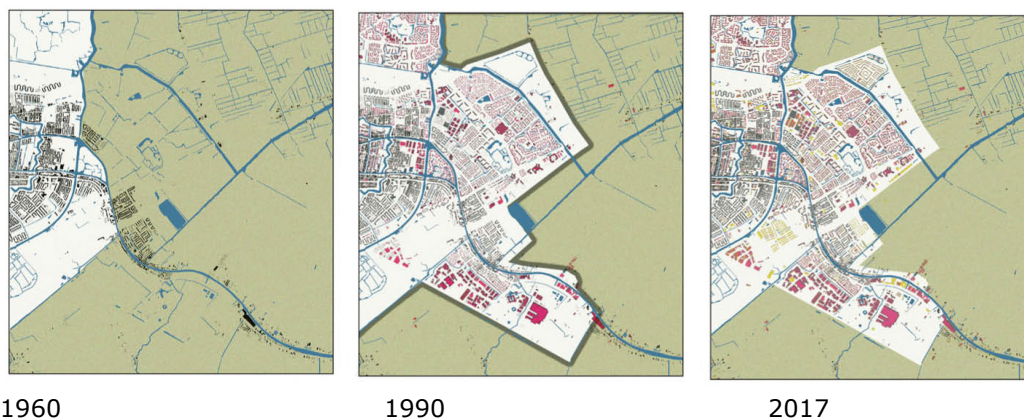
Figure 14. Changing boundaries of the Green Heart: a) indicative boundary; b) delineated boundary in 1990; c) indicative boundary 2017.

In this period, in order to keep the Green Heart open, the official Dutch policy was threefold: (1) impose restrictions on residential and industrial developments within the area; (2)

provide alternative space for development in new towns and urban expansion outside the region; (3) improve the quality of landscape and nature within the area itself. But because of the large demand and scarcity of land for urban and economic expansion, it took years before the boundaries of the Green Heart were firmly delineated. The boundaries of the Green Heart (Figure 14) were defined for the first time in 1990, in the Supplement to the Fourth National Policy Document on Spatial Planning (*Vierde Nota over de Ruimtelijke Ordening Extra, Vinex*), and elaborated in the Green Space Structure Plan (*Structuurschema Groene Ruimte*) from 1992 (Kooij, 2010).

Nevertheless, the protection policy of the Green Heart only existed for 10 years. The combined policies, in which restrictions were mixed with development measures, has for many decades been a successful approach for this vulnerable area. In the course of time, the general tendency changed towards deregulation, decentralisation and privatisation. The national government dismissed the landscape protection policy and delegated those tasks to the provinces. This change threatened to reduce the Green Heart to what it had been before in the 1960s, the hinterland of a number of individual cities and towns, each with its own development plans (Kooij, 2010).

The pressure on the landscape of the Green Heart continues, and as we can see on the example of the city fringe of Leiden (Figure 15) the policy alone, however strict it was in the past years was only partly effective in halting the urbanisation of the Green Heart.



Leiden City Border to Green Heart
Development Through Time



Figure 15. Urban expansion of the eastern side of Leiden from 1960 till 2017.

Together, the building restrictions in the Green Heart, the policy of compact extension of the Randstad and the creation of new towns (under *VINEX*) could not stop all development in the Green Heart. Today, the average population density of the Green Heart lies at the 475 inhabitants per km², certainly not a figure that seems in line with area's image of a non-urban, open landscape. The rapid growth of the surrounding new towns, however, suggests that the outcome could have been different if there was no policy at all (Lorzing, 2004).

As this experience shows, landscape reconstruction, nature conservation and heritage protection could only work within the framework of a consistent, long-term policy and financial support at a high administrative level. Unfortunately these conditions only lasted for

the certain period of time and the changing context required finding new ways of dealing with the pressures of urbanisation.

4.2 Green Heart in the network planning period

Since the beginning of this millennium spatial policy is shifting from controlling and restricting to stimulating and supporting. Nowadays coalitions between different governmental levels and various other actors are engaged in a large number of landscape projects.

A growing number of bottom-up initiatives is emerging, all promoting and applying an integrated landscape development approach on larger or smaller scale (Figure 16). As it can be seen from the examples presented in the Text boxes 2 and 3, coalitions between the actors can have variety of forms and arrangements and be directed towards various spatial interventions. Within the framework of current legislation and subsidy system they aim to maximise the use of available means so to combine several targets in a common development programme.

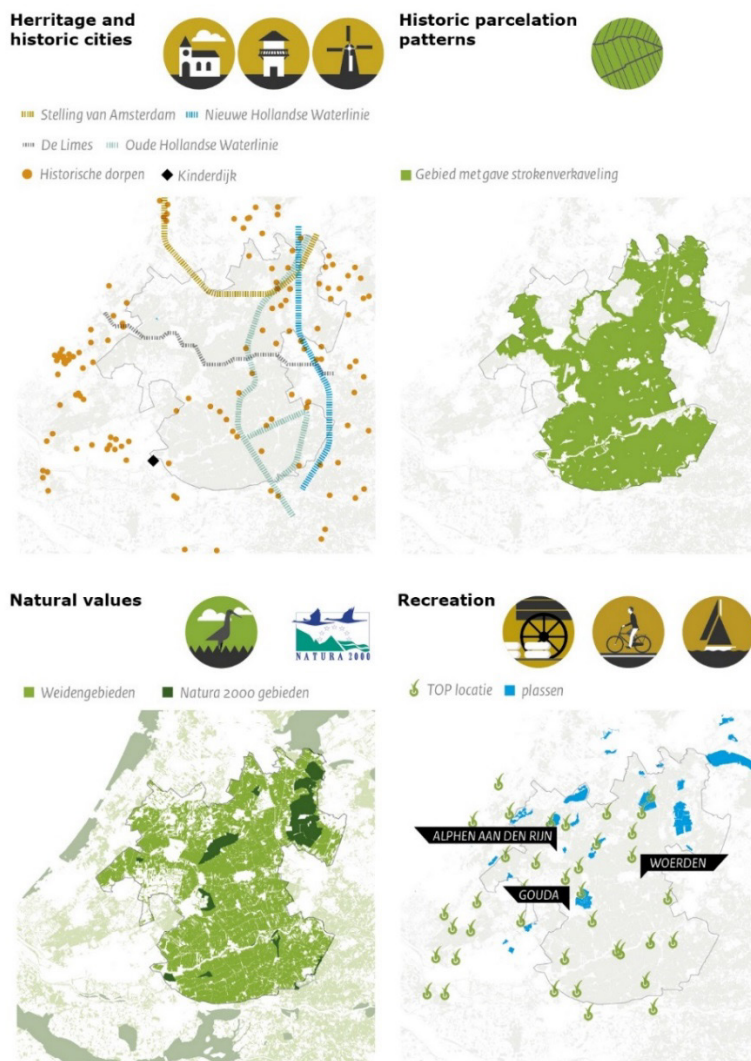


Figure 16. Promoting various values of the Green Heart (Source: PBL, LGN, Stichting TOP Routenetwerken)

The Green Heart region also had to restructure its forces and find the new way of protecting and promoting the region. The multi-stakeholder platform, a coalition between entrepreneurs, societal organisations and government called Steering Committee National Landscape Green Heart ('*Stuurgroep Nationaal Landschap Groene Hart*') was formed. The Steering Committee includes representatives from the three provinces (South Holland, North Holland and Utrecht), a regional water authority and municipalities (Figure 17). It focuses on achieving concrete results with 10 core projects on topics such as land decline, spatial quality and recreation. The Steering Committee supports the municipalities that take the lead in the promotion, for example when drawing up plans for the future generally by knowledge sharing, but sometimes also with financial means. Branding became the key word, raising the economic importance by attracting visitors and offering touristic attractions and local agricultural products are part of it.

Another organisation called The Green Heart Foundation has been committed to preserve the character of the Green Heart, with all its culture, landscape and nature values. Together with private sector, NGOs, residents and local governments the Foundation counts 250 active rural entrepreneurs and more than 2,500 friends of the Green Heart. The Foundation actively works on marketing and promotion (*Stichting Merk en Marketing Groene Hart*) of the Green Heart. Through the Quality Atlas (www.kwaliteitsatlas.nl) the foundation monitors the core qualities of the Green Heart⁶.

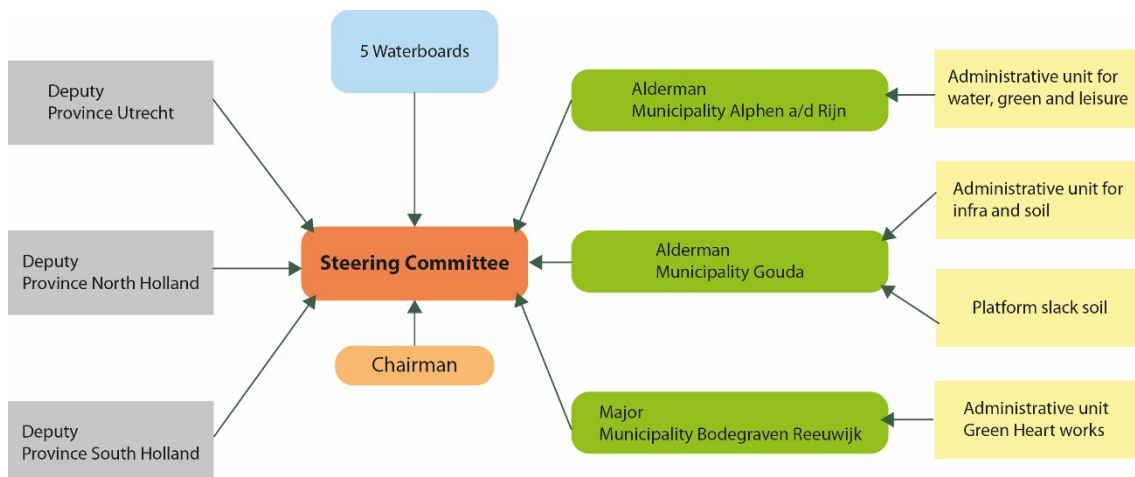


Figure 17. Organisation of the Steering Committee of the Foundation Green Heart

The multi-stakeholder platform Green Heart functions in a way as an additional governance layer in the management of the region. This example fully fits in the philosophy of the ILM and shows the benefits that joined forces and shared responsibilities can bring to the region. Text box 5 about the Green Clove Association shows how this integrated approach works on the ground.

⁶ The Green Heart foundation publishes weekly journal Green Flash, contains cultural tips, political reports at municipal and provincial level, research reports and high-profile opinion pieces. The newsletter reaches more than 7,500 digital addresses every week. In addition, the foundation publishes Green Heart Life every quarter, a glossy magazine with interviews and reports about this traditional Dutch region. The foundation also offers space for debate, for example, it organizes a quality tour or symposium several times a year, which deals with issues such as mobility, problem of vacancy of farms or nature development in the Green Heart.

TEXT BOX 5: Green Heart and the Green Clove Association

The Green Clove (*De Groene Klaver*, www.degroeneklaver.nl) is a cooperative association of five agricultural nature management associations that have joined hands with the aim of promoting their way of farming and the area around Leiden where they live. The association encompasses both farmers and dairy producers. From their perspective, the interests of citizens and entrepreneurs, ecological and economic aspects, food and well-being should be equally represented in the landscape. In other words, their aim is to produce healthy food in a way that also benefits the environment. To this end, the association has engaged in several activities; it promotes green-blue services, nature and biodiversity protection and water management.



Photo: Farm De Vierhuizen in Zoeterwoude (Source: www.kaasboerderijdevierhuizen.nl)

For the purposes of this study, we interviewed Theo van Leeuwen, chairman of the Green Clove Association and owner of the cheese producing farm De Vierhuizen in Zoeterwoude. Theo is the fifth generation of the family which has been running the farm since 1800. We asked him about his farm and the association, his past experience and how policy changes influenced his farming. In Theo's experience, the land consolidation period and the sectoral policy during the 1970s were not very successful, as nature and agriculture were competing against each other. Later on, the policy became more integrated, but still rather unsuccessful, being a top-down planned policy that the local farmers did not embrace. As an example, he mentioned the provincial policy of developing a large green-blue corridor in the landscape (*Groenblauwe slinger*), which subsequently failed because the local population did not support it. The policy has since been decentralised and the agricultural sector has become aware of its role in society, which is not only to produce food but to do this also in a way that contributes to the quality of the landscape, biodiversity and people. We asked him to synthesise his experience in a few messages that could be beneficial to stakeholders in similar landscape initiatives around the globe, for example, farmers in developing countries. This is what he said:

- There will always be farmers who are pioneers, farmers with a vision of change and progress, they start first and the others follow their example.

- Especially in the beginning, the government should support such visions, by providing subsidies and facilities, as well as by creating new supporting regulations.
- Various sectors should be treated equally to avoid one dominating the other.
- Combining several farms in an association has many benefits; it increases the range of products and the size of properties, contributing to the development of the whole region.
- Policy needs to have continuity, so that it cannot easily change the conditions of farming.
- Agreements need to be formally adopted in the long term, so that government changes, such as after elections, do not influence the processes of cooperation.

5 Conclusion: Lessons with landscape in mind

The last three decades have seen a continuous shift in paradigms in spatial and landscape planning policy and practice in the Netherlands; from sectoral to integrated, from prohibiting to utilising opportunities, from physical space to quality of living, from hierarchical governance and blueprint planning to a network, participatory, multi-actor approach with the guidelines of planning—in other words, from government-led to society-driven. Accordingly, landscape has become a mixed term, referring to a physical space, a social and perceptual concept, as well as a metaphor for an integrated approach. In the last three decades of the integrated spatial policy, which is the scope of this study, there were successes and failures, adaptations and changes, of which we share the key ones here.

After World War II and up to the 1980s, the hierarchical governance supported by stringent planning instruments has shown to be very effective in the realisation of large-scale projects on both national and regional level. During that time, many iconic projects were created, some of them related to landscape and nature development: the National Ecological Network (NEN), national buffer zones and the Green Heart national landscape became the 'icons' of Dutch spatial planning (former Ministry of Infrastructure and the Environment, 2013).

Long-term policy is an extremely important issue in the Netherlands, from the point of view of spatial quality, economic stability and awareness rising. Strong and long-term policy made it possible for the NEN, national buffer zones and some of the Green Heart areas to develop and/or preserve their qualities. From an interview with a local stakeholder representative we learned that stable long-term policy is important for entrepreneurs to feel economically safe. As the examples of the Green Heart and national buffer zones show, long-term conservation policy raised the awareness about the value of landscape among citizens and entrepreneurs. Hence, even after the national landscape protection policy had been abandoned, regional authorities and local stakeholders continued to take care of the landscape in these areas. None the less, the hierarchical governance also had its negative sides, such as rigidity in face of societal changes and sectoral approach.

Since the end of the 1980s, hierarchical governance has been gradually replaced by the network governance. Coalitions between various stakeholders are needed in order to achieve economic and ecological sustainability of the regions. Economic viability and value for society are important elements to be incorporated in spatial planning policy. The effect on landscape is that protection is replaced by development, meaning that protected areas are opening up for recreation and tourism, with marketing and 'branding' becoming the strategies of regional promotion.

Following the recent process of deregulation and decentralisation of the national spatial planning policy, the roles and responsibilities of government authorities at different levels have been redefined. The role of the national government is transformed to 'system responsibility', in other words - facilitating this process by making rules and regulations transparent and simple, and by providing necessary knowledge. Regional governments were given a more prominent role in spatial planning as they act as moderators between the national and municipal governments. Non-governmental stakeholders and citizens are

stimulated to either initiate or take part in spatial planning initiatives. For instance, in the policy forming documents we would often find the idea that landscape protection implies societal 'governance', the ubiquitous label for alternative models of political engagement in society. However, while policy makers have announced that entrepreneurs and citizens should be the key architects of bottom-up initiatives, regional and local governments still remain the crucial actors initiating and supporting coalitions between private and public stakeholders.

From the perspective of planning literature, integration is a natural part of a more holistic spatial planning process. Over time, integration has emerged as a concept to organize successful planning processes in large-scale projects involving multiple stakeholders, different (levels of) planning authorities, different views, strategies and policies of stakeholders. However, from the perspective of the planning practice, integration makes planning processes more complex than usual. The lesson that we have learned from the Dutch spatial planning practice is that the time of large-scale projects is over. In order to be realised by the relatively soft instruments characteristic for the network governance, future integrated projects should have realistic and manageable ambitions and be smaller in scale. However complicated, the dedication of planners and practitioners to integration and an integrative planning approach in the Netherlands continues. In the new National Environmental Vision (NOVI), integration is key, bringing spatial planning very close to the integrated landscape approach philosophy.

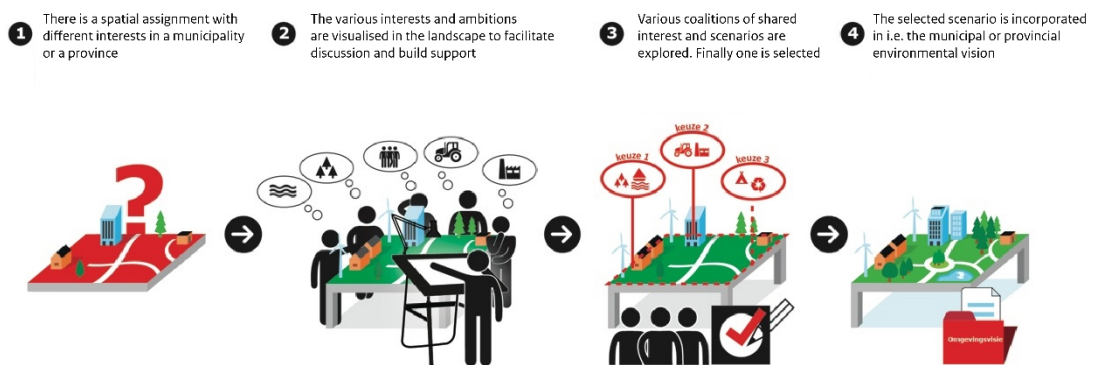


Figure 18: Development Principle for an Environmental Vision
(Adapted by PBL from <http://mijnomgevingsvisie.nl/wp-content/uploads/2015/12/Werkwijze-Atelier-ZZ-Omgevingsvisie.jpeg>)

Horizontal and vertical alignment, participation, shared responsibility, and coalitions with societal parties are even more emphasised than in the previous spatial planning documents. When looking at the development principle of NOVI as shown on Figure 18, the ILM cycle elements (Figure 2) as well as the principles of Inclusive Green Growth (Figure 1) can easily be recognised. Spatial planning could potentially provide an important instrument to facilitate the integrated landscape management. It is an acknowledged fact that people generally oppose change and long for certainty and continuity. Hence, even in such a progressive country as the Netherlands, there is a need for balance between continuity and opportunity for transformation in spatial planning. For the new National Environmental Vision finding this balance is an important challenge.

Finally, we recognize that, though the Netherlands is a small country, it is economically developed with an established system of planning and a democratic tradition, one would expect that all this would make it relatively easy to control and manage spatial developments for the whole territory, but as this study shows, it has always been and still remains a rather complex and dynamic challenge.

6 References

- Bloemers T.(2010). The cultural landscape and heritage paradox. Protection and development of the Dutch archaeological-historical landscape and its European dimension', in: T. Bloemers, H. Kars, & A. van der Valk (eds). *The cultural landscape & heritage paradox*. Amsterdam University Press.
- CBD – UN Convention on Biological Diversity (2014). How sectors can contribute to sustainable use and conservation of biodiversity. CBD Technical Series No. 79. PBL Netherlands Environmental Assessment Agency, The Hague.
- CBS, PBL and WUR (2012). Cultuurhistorische en natuurlijke kwaliteiten van nationaal belang, www.clo.nl, accessed October 2018.
- Denier L, Scherr SJ, Shames S, Hovani L, Chatterton P and Stam N. (2015). *The Little Sustainable Landscapes Book*, Oxford: Global Canopy Programme.
- Fairclough G. (2008a). New heritage, an introductory essay – people, landscape and change, in Fairclough G, Harrison R, Jameson JH and Schofield J. (eds.). *The Heritage Reader*, London/New York, 297–312.
- Council of Europe (2000). European Landscape Convention, Florence.
- Friedman J. (1989) *Planning in the public domain, from knowledge to action*. New Jersey, Princeton.
- Geuze A. (2018). NRC.next '[Parijs, Londen, die koesteren hun landschap](#)'.
- Goosen CM. (2006/2007). Monitoring recreatiegedrag van Nederlanders in landelijke gebieden, *WOT-werkdocument 146*, Alterra, Wageningen
- Horn S and Van der Meijer J. (2015). The Landscape Approach. PBL Netherlands Environmental Assessment Agency, The Hague.
- Jackson JB. (1984). *Discovering the vernacular landscape*. Yale University Press, New Haven.
- Janssen J, Pieterse N and Van den Broek L. (2007). *Nationale landschappen. Beleidsdilemma's in de praktijk*, NAI Uitgevers, Rotterdam, and Netherlands Institute for Spatial Research (RPB), The Hague.
- De Jonge JM.(2009). *Landscape architecture between policy and science: An integrative perspective on landscape planning and design in the network Society*. PhD thesis Wageningen University.
- Kooij P. (2010). How the Netherlands got a Green Heart and lost it again, *Historia Agriculturae*, Vol. 42, 196–208.
- Leenen H. (2014). Land Development in The Netherlands, <http://geodaesie.info/zfv/heftbeitrag/3510> Visited 5 April 2018.
- Lörzing H. (2001). *The nature of landscape. A personal quest*, 010 Publishers, Rotterdam.
- Lörzing H. (2004). Planning system and landscape: A Dutch example, *Landscape Research*, Vol. 29, No. 4, 357–369.
- Ministry of Infrastructure and the Environment (2013): 35 icons of Dutch spatial planning. <https://www.rijksoverheid.nl/documenten/rapporten/2013/10/28/35-iconen-van-ruimtelijke-ordening-in-nederland> Visited 5 April 2018.
- Nassauer JI. (2012). Landscape as medium and method for synthesis in urban ecological design. *Landscape and Urban Planning*, Volume 106, Issue 3, pp. 221–229.
- PBL (2015), *Het Groene Hart in beeld*. PBL Netherlands Environmental Assessment Agency, The Hague.
- PBL (2017): *People and the Earth*. PBL Netherlands Environmental Assessment Agency, The Hague.
- PBL (in preparation): Nederlandse landschap in kaart. PBL Netherlands Environmental Assessment Agency, The Hague.
- Pedroli B, Van Doorn A and De Blust G. (eds.) (2007). *Europe's Living Landscapes. Essays Exploring our Identity in the Countryside*, Zeist.
- Pols L and Bijlsma L. (2015). in: R. van der Wouden, (ed).: *De ruimtelijke metamorfose van Nederland 1988-2015*, PBL nai010.
- Reh W, Steenbergen C and Aten D. (2006). *Sea of land; The polder as an atlas of Dutch landscape architecture*, UNH Amsterdam.
- Scherr S, Shames S and Friedman S (2013). Defining Integrated Landscape Management for Policymakers; *EcoAgriculture Policy Focus* no 10.
- Schröder RRG, Wascher DM, Odell S and Smith C. (2010). [Comparing landscape planning in England, Germany and the Netherlands : policy contexts and three case study plans](#). *Alterra-report 2040*, Wageningen.

- Shames S et al. (2017). *Public Policy Guidelines for Integrated Landscape Management*, EcoAgriculture Partners.
- Van Straalen FM. (2012). The concept of Integration in spatial planning: An exploration. *Proceedings of the 26th Annual Congress of AESOP, Ankara, 11–15 July 2012, Ankarap.* 396–396.
- Van Straalen FML, Janssen-Jansen L and Brink A. (2014). Delivering planning objectives through regional-based land use planning and land policy instruments: An assessment of recent experiences in the Dutch provinces. *Environment and Planning C Government and Policy* volume 32, pages 567–584.
- Tisma A. (2011). Metropolitan landscapes in the Netherlands: Effects of policy shifting. In *Actas das conferencias do parque de Serralves*, Vol. II Serralves foundation, Porto.
- Tummers LJM and Tummers-Zuurmond JM. (1997). *Het land is de stad: De stedebouw van de grote agglomeratie*. Bussum, Toth.
- Van der Valk A. (2010), Planning the past. Lessons to be learned from protecting and developing the Dutch archaeological-historical landscape. In: Tom Bloemers, Henk Kars, Arnold van der Valk (eds.), *The Cultural Landscape & Heritage Paradox*, Amsterdam University Press.
- Wagenaar C. (2015). *Town Planning in the Netherlands since 1800*, NAI Boekverkopers/Booksellers.
- UNCCD - United Nations Convention to Combat Desertification (2017). *The Global Land Outlook*, first edition. Bonn.

7 Appendix

National parks

In the Dutch planning system, national parks are areas of exceptional or outstanding natural value. A national park must cover a surface area of at least 1,000 hectares (approx. 2,500 acres). The twenty national parks form a colourful mosaic of nature areas, characterised by their exceptional landscapes and rare plants and animal species. Landowners, site managers and other stakeholders ensure that the special characteristics of these areas remain intact and the most exquisite nature sites are preserved. In national parks nature can be experienced at close hand, for recreation, obtaining information or education and research. Together, the national parks covered in 2009 an area of nearly 130,000 hectares, or 3% of the territory of the Netherlands.

In 2016, a national parks deal was concluded as a result of the first year of the national parks programme. This programme contributes to the realisation of the goals of the 'The Natural Way Forward: Government Vision 2014' and the NEN. In the joint letter of intent of fourteen parties involved, the following three goals are central:

- Increasing the qualities of national parks in the Netherlands;
- Strengthening the involvement of society in nature;
- Achieve a stronger brand and market position of national parks in the Netherlands.



Bron: LNV.

WUR/feb10/1314
www.compendiumvoordeleefomgeving.nl

National landscapes

National landscapes were defined in the Report on Spatial Development (*Nota Ruimte*), 2004. Other than the national parks, the national landscapes were not delineated from the beginning; in the *Nota Ruimte*, their locations were described in general terms only. Later final delineation is being made for some of them by the provincial governments concerned. In the 2004 *Nota Ruimte* the government outlined the 'core qualities' these national landscapes would have to meet. These core qualities ('kernkwaliteiten' in Dutch) refer to the unique landscape values of the areas concerned. They refer to:

- natural elements: soil, water, relief, geology, plant and animal life;
- cultural aspects: cultural history, cultural renewal and architectural design
- use: amenities for recreation and tourism, accessibility and multiple use of space
- perception: spatial diversity, educational value, contrast with the urban environment, peace and quiet, nocturnal darkness

As the national landscapes differ in appearance, so will their core qualities. In its 2004 report, the national government has given a description of the qualities of each national landscape. The status of national landscape implied that national, provincial and municipal authorities would give extra attention to enhancing the core qualities in these areas. Until 2008, additional financial means were available for this purpose.



Bron: IenM; Provincies; Alterra.

PBL/sep12/1510
www.compendiumvoordeleefomgeving.nl

National landscapes differed in many respects from national parks. In the first place, they had a much more versatile land-use compared with the primarily ecological motives behind the designation of a national park. National landscapes were comprehensive areas, where people live and work, and where recreational use is encouraged. Although agriculture was the prevailing type of land-use in most of the national landscapes, a surprising number of 2.5 million people (some 15% of the national total; Lorzing 2004) lived in 2008 in all national landscapes together. Because they were large areas with a great diversity in land-use,

national landscapes had many landowners. These could vary from governments and governmental organisations to institutions for nature protection and heritage conservation, to various relatively small landowners such as farmers, campground owners and homeowners. The majority of these landowners was directly responsible for exploitation, management and maintenance of their property within the national landscape. Designation of an area as national landscape didn't mean that all further development had to come to a standstill. Preserving the characteristics of the area was mainly done by eliminating 'alien' developments such as large-scale urban extensions, industrial areas and commercial centres. Local communities and enterprises were enabled to grow according to the scale of the rural area.

The last monitoring of the housing developments in National landscapes showed that between 2000 and 2012 the total number of homes in the National Landscapes increased by 0.65% per year. In the period 2012-2015 the number of homes increased further by 0.71% per year). The acreage of urbanisation shows an increase of an average of almost 0.6% per year in the National Landscapes in the period 2000-2012. The increase was definitely the largest in the Green Heart. (CBS, PBL, WUR (2016). [Ontwikkeling ruimtegebruik in nationale landschappen, 2000-2015](#) (indicator 1513, versie 04 , 7 september 2016). www.clo.nl. CBS, Den Haag; PBL, Den Haag en WUR, Wageningen.)

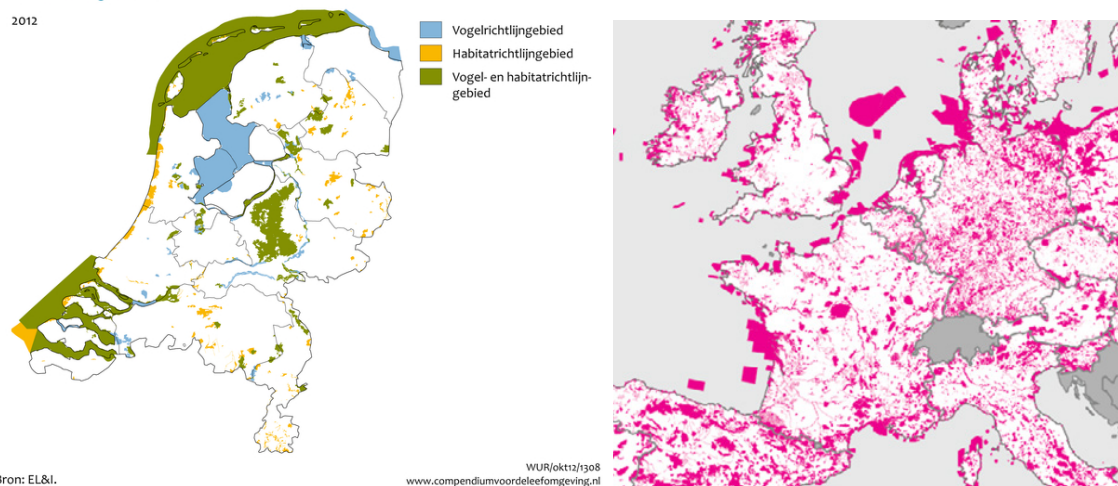
Natura 2000

NATURA 2000 is a network of protected areas across the EU, which was established in 1992. In these areas certain species of animal and their natural habitats are protected in order to preserve biodiversity. The network is made up of:

1. Special Protection Areas (SPA's); high level protected sites classified in agreement with the Birds Directive. The species which are involved are listed in in Annex I of the Birds Directive and additional regularly occurring migratory species.
2. Special Areas of Conservation (SAC's); protected sites assigned under the Habitats Directive. The habitat types and species concerned are listed in the Annexes I and II of the Habitats Directive. The list concerns habitat types and species that are considered to be most in need of conservation at the European level.

Natura 2000-gebieden

2012



Natura 2000 areas are protected under the Nature Conservancy Act. The European [Birds Directive](#) and [Habitats Directive](#) define what areas qualify as Natura 2000 areas. The Netherlands has over 160 [Natura 2000 areas](#). They are all part of the [National Ecological Network](#) (NEN), some of which still need to be created.

Nitrogen ends up in the environment as a result of manure applications in farming and emissions from industry and motor vehicles. A special strategy for tackling excess nitrogen (known as PAS) is designed to reduce the amount of nitrogen in Natura 2000 areas. Measures to achieve this are incorporated into the management plan. Only once levels are low enough can new nitrogen-emitting commercial activities be permitted.

Many Natura 2000 targets depend on water quality. The [Water Framework Directive](#) (WFD) stipulates standards for water quality in Natura 2000 areas. Natura 2000 areas where water quality must be improved can be broken down into two categories:

- The 'sense of urgency' areas, where water quality must be restored quickly, before 2016, otherwise natural values will be irretrievably lost;
- Other Natura 2000 areas where water quality is an important factor. Management measures may be implemented over a longer period in these areas.

National Ecological Network (NEN)

The Dutch National Ecological Network (NEN, formerly the EHS), a network of connected nature reserves, totalling 695 ha, is an important part of modern Dutch environmental policies and the main Dutch contribution to the international effort to reduce the loss of biodiversity. The NEN is a network of existing natural and semi-natural habitat, and agricultural land to be converted to nature. It was introduced in the 1990 Nature Policy Plan by the then Ministry of Agriculture, Nature Management and Fisheries. The aim of the NEN is to halt the decline in the area of natural and semi-natural habitat and the loss of biodiversity through the creation of a coherent network of protected areas. This is being achieved by increasing the size of natural areas and linking them together by acquiring the surrounding agricultural land and agricultural enclaves for habitat creation. Large contiguous natural areas are also favourable for improving water and environmental conditions. The Nature Pact (2013) gives the responsibility for meeting the land acquisition and habitat creation objectives to the provinces.

The network is designed to link nature areas more effectively with each other and with surrounding farmland.

The NEN encompasses:

- Existing nature conservation areas, including the 20 national parks;
- Areas where new wildlife habitats are being created;
- Agricultural land under nature-friendly management;
- Over six million hectares of water: lakes, rivers, the North Sea coastal zone and the Wadden Sea;
- All [Natura 2000 areas](#).

The provincial authorities are responsible for the terrestrial National Ecological Network. The national government is responsible for the NEN on large waters.

National Highway Panoramas (Snelwegpanorama's)

In 2008 the nine Highway Panoramas have been designated by the national government. A panorama is the limited view through the open space on a recognisable landscape. An absolute condition for the existence of a panorama is therefore an unobstructed view. The idea of this policy was to prevent constructing objects that would disturb the view and the landscape quality within the panorama.