

NATURE-INCLUSIVE NETHERLANDS

NATURE EVERYWHERE
AND FOR EVERYONE

MARCH 2022



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CONTENTS

SUMMARY	4	SOLUTIONS AND RECOMMENDATIONS	29
<hr/>		<hr/>	
1 INTRODUCTION	10	4.1 Broaden the focus of nature policy: Nature everywhere and for everyone	30
1.1 Background	10	4.2 Link nature restoration with other challenges facing society	34
1.2 Broad concept of nature	11	4.3 Take natural assets fully into account in economic and political decision-making	36
1.3 Main question	11	4.4 Promote regional collaboration between the authorities and other stakeholders	37
1.4 Reader's guide	11	<hr/>	
<hr/>		REFERENCES	39
2 DECLINE OF NATURE IN THE NETHERLANDS	12	<hr/>	
2.1 Importance of nature	12	APPENDICES	45
2.2 Nature and biodiversity loss in the Netherlands	15	<hr/>	
<hr/>		RESPONSIBILITY AND ACKNOWLEDGEMENT	45
3 SHORTCOMINGS IN NATURE POLICY	20	OVERVIEW OF RLI PUBLICATIONS	49
3.1 Focus of nature policy too narrow	21	<hr/>	
3.2 Insufficient links between nature policy and other policies	23		
3.3 Nature not given enough weight as a factor in economic and political decision-making	24		
3.4 Authorities do not cooperate closely enough	27		
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Note: The Dutch version of the advisory report contains an additional analytical section.





SUMMARY

Nature is deteriorating at an alarming rate worldwide and the Netherlands is certainly no exception in that regard. From agricultural areas to nature reserves and from inland waters to urban areas, the quality of nature and biodiversity is declining everywhere. This is a troublesome development, because robust nature is crucial to combating climate change and ensuring a sustainable food supply. It is, moreover, essential to people's health and wellbeing to have nature in their immediate surroundings. Nature also plays a vital role in securing drinking water, healthy food and clean air. Nature is therefore essential for human existence.

In response to this biodiversity crisis, the Council for the Environment and Infrastructure (Rli) has examined whether the Dutch government's current nature policy is adequate and, if not, what changes are needed.

Dutch nature policy falls short

The Netherlands is performing poorly with its current nature policy and that policy falls short in various ways. We can identify four reasons for this:

- The concept of nature in the Netherlands is too narrow.
- Dutch nature policy is not sufficiently linked to other policies.
- Nature is not given enough weight as a factor in economic and political decision-making.
- The various authorities do not cooperate enough.

Focus of nature policy too narrow

The concept of nature is too narrowly defined in Dutch nature policy, in our opinion. The current policy focuses mainly on protected areas, but these areas are part of much larger ecosystems that extend beyond the protection boundaries. Many animals that live in protected areas also forage in the surrounding areas, for example. The current policy fails to adequately protect the areas and to ensure proper conditions for groundwater and surface water, the soil and the ecosystem.

The narrow scope of the Netherlands' nature policy also means that nature in rural and urban areas is often neglected. Nature restoration is also important in those areas, both to maintain ecosystem services and to give people access to the green environment that they need for their health and wellbeing.

Insufficient links between nature policy and other policies

The government has stalled in its efforts to interweave the challenges related to nature with other societal challenges and to move towards a nature-inclusive society. Well-intentioned parties in society in fact face all kinds of obstacles. Farmers are unable to convert opportunities for nature-friendly farming into a profitable revenue model. In construction, the lack of clear policy guidelines is hindering green building and green renovations. The transformation of national parks into larger nature-inclusive areas is being hampered by the narrowness of the statutory criteria. The proposed integrated approach to tackling society's challenges is failing because national budgets cannot be pooled and used for a regional approach.

Nature is not given enough weight as a factor in economic and political decision-making

Despite widespread public concern about the state of nature in the Netherlands, nature is still not given enough weight as a factor in economic and political decision-making. It is often perceived as an expense and as a fringe interest that hampers economic growth. Policymakers appear to have a blind spot when it comes to the importance of nature for human existence.

Inadequate cooperation between authorities

The fourth reason for the government's failure to achieve its nature policy objectives is the lack of coherent governance. For nature policy to be effective, cooperation and coordination are essential. In reality, the various authorities often fail to cooperate with one another and with other parties. They also fail to systematically monitor progress towards targets and to put independent oversight of their performance in place.

Solutions and recommendations

Biodiversity is in crisis in the Netherlands. The Dutch government should make nature policy more of a priority on its political and administrative agenda. It is crucial for the Netherlands to reverse the decline of its natural assets and to restore nature. To do this, the government will have to work much harder towards shaping a nature-inclusive Netherlands, for example by linking nature restoration to the other challenges facing society.



The government plans set out in the 2021-2025 coalition agreement will certainly help. The two funds (amounting to €60 billion) that the new government intends to establish to underpin its policy on climate change and nitrogen deposition will facilitate many of the necessary investments. The regional approach described in the coalition agreement is a further step in the right direction.

In this advisory report, we present four possible solutions leading to the desired perspective outlined in figure 1. We also offer a number of specific recommendations.

1 Nature: everywhere and for everyone

To achieve the large-scale restoration of biodiversity, nature policy must be broader in scope. It must cover *all* the green spaces in the Netherlands, both in protected areas and beyond. The concept of a ‘basic quality standard for nature’ offers a firm basis for determining the minimum level of quality in a particular area, both for nature in and of itself and for its experiential value.

Recommendations

- National and provincial authorities: Finish expanding and developing the Netherlands Nature Network in time, and do not jeopardise the protection of Natura 2000 areas. This is an important factor in achieving the conservation targets agreed at international level.

- National, provincial and municipal authorities: Ensure that regional environment and planning strategies establish a minimum quality standard for nature on a region by region basis and in consultation with stakeholders (see also section 4.4). Municipal authorities: Incorporate these minimum quality standards into the municipal environment and planning schemes and into planning guidelines for public spaces; this is important both for new buildings and for existing neighbourhoods.
- National authorities: As part of the ecological authority proposed in the coalition agreement, set up a national expertise network for nature to support the provincial and municipal authorities in establishing a basic quality standard for nature, region by region.
- National authorities: Amend the Nature Conservation Act (to be implemented as the Environment and Planning Act) to allow for the nature-inclusive development of larger regions in accordance with the ‘New Style’ National Parks.
- National authorities: Support the movement towards a nature-inclusive society with nature education programmes.

2 Link nature restoration with other challenges facing society

We believe there are considerable opportunities to link nature restoration, both within and outside protected areas, with the major challenges facing Dutch society. This is true first and foremost for the challenges that have a spatial dimension, namely housing, climate change and the energy transition, and sustainable agriculture. Nature restoration can form part



of the Netherlands' approach to other challenges as well, for example delivering affordable and viable health care.

Recommendations

- National authorities: Make nature part of the *regional approach to the nitrogen crisis* and combine that approach with other national and regional challenges in those regions. Reach agreements about this with provincial and municipal authorities and water boards, and use the funds proposed in the coalition agreement to support these agreements. Make use of the national land bank announced in the coalition agreement to support regional processes. Incorporate the Forest Strategy into this.
- National, provincial and municipal authorities and water boards: Make clear to the companies in the agricultural sector which targets stem from a region's ecological challenges (Rli, 2021a). The requirements arising from a region-specific basic quality standard for nature offer guidance and may also help improve operational conditions (e.g. resilient crops and pollination).
- National authorities: Conclude an administrative agreement with the *construction sector*¹ on the nature-inclusive planning of residential areas, new buildings and renovations, including the materials to be used. Incorporate the provisions of these agreements into housing deals. In addition, stipulate in the Environment Buildings Decree that nature-inclusive design, construction and renovation must contribute to attaining the minimum requirements for a region-specific basic quality

¹ Specifically, construction firms, property developers and area planners.

standard for nature. Investigate whether the Nature Conservation Act (to be implemented as the Environment and Planning Act) offers a basis for this. Ensure leeway for customisation to facilitate an integrated approach to spatial planning and to allow for regional variations on the basic quality standard for nature. The points systems already in use at various municipalities can serve as an example.² Include a points system of this kind in the Guidance for decentralised regulations on climate-proof construction and planning [*Handreiking decentrale regelgeving klimaatadaptief bouwen en inrichten*] and incorporate it into future housing deals.

- National authorities: In conjunction with the Association of Netherlands Municipalities (VNG), the Association of Provinces in the Netherlands (IPO) and the Dutch Water Authorities (UvW), make nature-inclusive practices the starting point for addressing the energy transition. Make agreements with the energy sector on nature-inclusive design, construction and management of installations and buildings. Incorporate these agreements into the guidance and toolbox for regional energy strategies 2.0.
- National authorities: Make agreements with *health insurers* about how they can help improve the quality of nature in the living environment as part of preventative and curative health care.

² Points systems for nature-inclusive building plans are instruments used by municipal authorities to approve and compare proposals, e.g. for real estate planning.



3 Take natural assets fully into account in economic and political decision-making

To make significant progress towards a nature-inclusive society, we need to address the causes of nature loss. Conversely, activities that have positive effects on nature and biodiversity should be encouraged. This means taking the broader value of nature fully into account in economic and political decision-making.

To facilitate the interweaving of nature and the economy, we advise using various instruments, ones that will redirect financial incentives and offer better guarantees for the value of nature in economic and political decision-making.

Recommendations

- National authorities: Link the forthcoming stricter terms for EU agricultural subsidies (Ministerie voor Landbouw, Natuur en Voedselkwaliteit, 2021a) to the aforementioned regional minimum requirements for a basic quality standard for nature. An independent certification authority can monitor the extent to which companies meet these requirements so as to qualify for eco-schemes. The authorities should then ensure an adequate level of enforcement.
- National and provincial authorities: Link existing subsidies for (agricultural) nature management and landscape management to the regional minimum requirements for a basic quality standard for nature.

- National authorities: Introduce tax measures to tackle damage to nature. This can take the form of a tax on nitrogen emissions or stiffer charges for industrial groundwater extraction.
- National and other authorities: Improve the use of social cost-benefit analyses so that more consideration is given to preventing damage to nature and to restoring biodiversity. As part of this, consider the experiential value of nature for the public and the availability of ecosystem services.
- All public authorities: Set a good example. First of all, adhere to sustainable and nature-inclusive principles in managing, leasing and selling government-owned land. To this end, offer long-term leasehold and management agreements, as envisaged in the coalition agreement (Rli, 2021a). Second, extend the concept of sustainable procurement to include standard requirements for biodiversity in public tenders.

4 Promote regional collaboration between the authorities and other stakeholders

Integrating spatial planning challenges requires a region-by-region approach that can be implemented jointly by all parties involved, each one assuming its own role and carrying out its own tasks. We therefore support the Government's intention of adopting an integrated, region-by-region approach to the challenges of nature restoration, climate and water quality in rural areas.



Recommendations

- National, provincial and municipal authorities: Ensure that nature-related challenges are linked to other challenges, for example in housing and energy, on a region-by-region basis so as to flesh out the intended basic quality standard for nature (see also section 4.1). Adhere to the national agreements with the relevant sectors (see also section 4.2). Align this approach with the integrated regional consultation bodies previously proposed by the Rli (2021b), allowing for regional diversification.
- Provincial authorities: Apply this regional approach across all regions, whether rural or urban. Involve non-governmental parties and residents. Create links to the National Programme for Rural Areas.
- National and provincial authorities: Agree to uniform reporting of operational and monitoring information regarding progress towards meeting the objectives of the national nature policy, both in protected areas and elsewhere. This will give the national government, as the party responsible for the system, a clear idea of whether the objectives are actually being met. To facilitate this, standardise data collection and self-reporting by all relevant authorities.
- National and provincial authorities: Be explicit about assigning the independent supervisory and inspection tasks for nature that are currently lacking at national and provincial level, for example to the Human Environment and Transport Inspectorate (ILT) and the environmental services. Ensure adequate staffing and funding. Where necessary, use existing authorisation to intervene within the context of intergovernmental oversight.

What we envisage is a nature-inclusive Netherlands: a country where nature is everywhere and for everyone, with robust nature areas, exceptional plant and animal species, and landscapes of outstanding beauty, and with plenty of green space and open water beyond the protected nature reserves - in agricultural areas, villages and cities – in which animals and plants that ‘belong’ there can thrive. In this country, every person can enjoy nature to the full in their own street and neighbourhood and boost their physical and mental health, and nature policy is embedded in other policies, so that the broader value of nature is explicitly taken into account in economic and political decisions.

Figure 1: Nature-inclusive Netherlands





1 INTRODUCTION

1.1 Background

There is a growing awareness across the globe that the natural world is in dire straits and that the variety of living organisms inhabiting our planet – Earth’s biodiversity – is declining at an alarming rate.

The United Nations (UN) considers the restoration of biodiversity to be fundamental to our prosperity and to maintaining a healthy planet (Convention on Biological Diversity, 2021). The European Commission has also recently stressed how dependent people are on nature for food, raw materials, clean air and water, health and wellbeing. The Commission considers biodiversity loss and ecosystem collapse to be one of the biggest threats facing humanity in the next decade, including in economic terms, arguing that the costs of inaction are already high and anticipated to increase (European Commission, 2020). That is why the EU has in recent years explicitly prioritised nature protection and measures meant to address the causes of nature and biodiversity loss. In the Netherlands, too, the government, civil society organisations and companies are feeling a sense of urgency (Ministerie voor Landbouw, Natuur en Voedselkwaliteit [LNV], 2020a, 2020b; Interprovinciaal Overleg [IPO] & LNV, 2019, 2020). According to the 2021-2025 coalition agreement, in the years to come the government will explicitly focus on nature protection and restoration and on linking the associated challenges to agriculture, housing and infrastructure.

Yet despite this heightened attention, nature is still being exploited worldwide as if it were an inexhaustible resource. Numerous treaties, declarations and policy intentions notwithstanding, nature is in steady decline, both worldwide and in the Netherlands. In fact, the loss of original natural assets in the Netherlands is considerably greater than the European average. The Netherlands is among the EU countries with the worst record on biodiversity restoration (Compendium voor de Leefomgeving [CLO], 2016).

The growing concerns about the progressive loss of nature, along with the urgent challenges that require the presence of robust and vital nature, for example carbon reduction and climate adaptation, have prompted the Council for the Environment and Infrastructure (RLI) to publish an advisory report on the Dutch government's nature policy.

1.2 Broad concept of nature

The word 'nature' was used several times above, but what exactly do we mean by it? In society, politics and policy, it has come to mean different things.

In this advisory report, we apply a broad concept of nature. Our definition of nature extends beyond nature in protected areas.³ Since the Netherlands no longer has any pristine wilderness, much of what the Dutch call 'nature' is in

³ We are referring here not only to protected areas on land but also to those in large bodies of water, coastal areas and the Wadden Sea.

fact historical cultural landscape, for example moorlands or peat meadows. Government policy also regards such historical cultural landscapes as 'nature'. Many people also consider the plants and trees in their own backyards, a nearby woodland, or farmland to be nature. Consequently, in this report we include nature in urban areas and consider not only at the importance of biodiversity but also the experiential value of nature.

1.3 Main question

In this report, we ask whether the national government's policy on nature is still adequate under the present circumstances and if not, what changes are necessary. The main question addressed in this report is:

Does the national government's current nature policy still offer an adequate response to the breadth and urgency of the challenge facing the Netherlands, given current insights into the importance of biodiversity, the threat of climate change and shifting attitudes in society?

1.4 Reader's guide

This report is structured as follows. Chapter 2 describes the decline of nature, worldwide and in the Netherlands. We discuss which problems this decline is causing in our country. Chapter 3 analyses the four shortcomings of current Dutch nature policy and the underlying reasons. Chapter 4 outlines four corresponding solutions for these shortcomings, which we then develop into four recommendations.





2 DECLINE OF NATURE IN THE NETHERLANDS

Humankind is part of nature. It influences nature and depends on it in many ways. Nevertheless, over the last 150 years, human beings have had a devastating impact on nature. In this chapter we consider the importance of nature, the decline of nature in the Netherlands and the problems this is causing.

2.1 Importance of nature

We depend on nature in numerous ways. Increasingly, we are acknowledging that there is a connection between the challenges of sustainability, nature restoration and biodiversity recovery.

Nature is essential for human existence

Many people do in fact perceive nature as essential for our existence. A survey that we commissioned from I&O Research shows that nine out of ten Dutch people consider nature in the Netherlands 'essential'. Asked what the government should prioritise in its nature policy, most people emphasised the relationship between nature, the climate, the environment and biodiversity: if we afford the environment better protection, then the

climate will improve and that will ultimately benefit nature and biodiversity (I&O Research, 2021).

The Dutch consider nature essential

The public survey that we commissioned from I&O Research shows that the Dutch consider nature to be of huge significance because it is important for their health, because they enjoy it, because children should be able to grow up with enough nature and greenery around them, and because nature is the source of everything that lives. Of all the reasons listed, 44% consider the last one to be the most important.

The importance of nature to the Dutch is also evident from the way they use it. One in three respondents visits a nature reserve or scenic area every day or week and 60% spend some time every day or week in green areas in their own surroundings. Of those who never or almost never go to a nature reserve, six out of ten would like to do so more often. Obstacles to being in nature more often are time ('I'm too busy'), geographical distance ('It's too far to drive') and money ('I would like to live closer to nature, but I don't have the money to move to a nice place outside the city'). People would also like to have more green spaces in the city.

Many people are worried about nature. A significant majority of those questioned (over 80%) think it is likely or very likely that plant and animal species will disappear from the Netherlands, and the same percentage find this prospect troubling (I&O Research, 2021).

The utilitarian and experiential value of nature for humankind is often described in the literature in terms of the 'services' that nature provides, i.e. *ecosystem services*. This concept refers, among other things, to the fact that nature offers us clean drinking water and food, but it also refers to other opportunities that nature affords, such as leisure pursuits, inspiration and a sense of awe, and the role it plays in shaping the identity of a region and its inhabitants.

People depend heavily on nature for both their physical and mental health (Diaz et al., 2018). The Covid-19 pandemic has made it clear that disruptions of natural ecosystems can pose an acute threat to mankind. The European Commission has referenced the IPBES (2019): 'The risk of emergence and spread of infectious diseases increases as nature is destroyed' (European Commission, 2021a). Proximity to nature also improves people's resistance to disease. People furthermore need nature to relax (Centraal Bureau voor de Statistiek [CBS], 2021a; Beute et al., 2020) – something that became abundantly clear during the Covid-19 pandemic. Moreover, having contact with nature promotes children's ability to learn (Ekkel & De Vries, 2017).

The Organisation for Economic Co-operation and Development (OECD) estimates the global economic value of the ecosystem services described here at more than one and a half times the world's gross domestic product (OECD, 2019). In fact, its total value is even higher, as we can only monetise nature's importance for humankind to a limited extent. It is becoming increasingly clear how much the long-term economy and prosperity in the



broader sense⁴ depend on the quality of nature (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services [IPBES], 2019; Steffen et al., 2015; World Bank Group, 2021; Secretariat of the Convention on Biological Diversity, 2020).

Societal challenges that the Netherlands faces are inextricably linked to nature

The Netherlands is facing major spatial and societal challenges, among them climate change, a more sustainable food system and a housing shortage (Rli, 2021b). Nature of a good quality standard can help us to tackle these challenges (Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen [WBGU], 2021). Conversely, major spatial planning interventions offer us the opportunity to simultaneously upgrade nature in terms of both scale and quality. The relationship between the sustainability challenges, nature restoration and biodiversity recovery is also being stressed at the European level. The EU's Green Deal – a series of policy initiatives aimed at making Europe climate-neutral by 2050 – is based on an approach that tackles the challenges of sustainability and nature restoration simultaneously.

The interaction between the climate problem and nature is undeniable. For example, climate change leads to biodiversity loss because even a slight rise in temperature can have a major impact on the survival of plants and animals. In turn, biodiversity loss makes society more vulnerable to the

⁴ We are referring here to the concept of 'broad prosperity'. This includes not only material prosperity, but also everything that people value, for example health, the ecology and the living environment.

impacts of climate change. Dead soil will not retain much water during heavy rainfall, for example. There is also a positive correlation between nature and climate change. After all, active measures to combat climate change depend on a generous supply of robust nature. For example, forests and oceans absorb a significant amount of carbon dioxide, which would otherwise be released into the atmosphere.

The give-and-take relationship between nature and climate change is also apparent in the consequences of human interventions. Forest clearance and peatland drainage lead to higher carbon emissions, but by expanding forests and maintaining peatlands, humankind can in fact reduce the amount of carbon dioxide in the atmosphere.⁵ The Forest Strategy pursued by the EU, the Dutch national government and the provincial authorities is important in this context, as it sets out policies that should benefit both nature and the climate.

We see a similar pattern in the relationship between food sustainability and nature: here as well, the interaction between the two is both positive and negative. For example, biodiversity loss may pose a risk to sustainable food production. Declining insect populations, for instance, jeopardise food crop yields and crop quality because no less than 75% of widely grown crops rely on animal pollination (IPBES, 2016). Likewise, robust soil that contains plenty of organic matter can support healthy and resilient crops without resorting to the widespread use of pesticides (Rli, 2020; LNV, 2018).

⁵ Combined with the absorption capacity of Earth's permafrost layer, soils and forests worldwide naturally absorb about 3.2 gigatonnes of carbon dioxide annually.



The negative impact on nature that solving the housing shortage might produce can be partly offset by ensuring the presence of sufficient good quality green space in towns and villages, which will also help create healthy living environments. Specifically, contact with natural green environments and their features has been shown to have a positive effect on physical and mental health (Van den Berg, Joye & De Vries, 2018). On hot days, for example, a green environment reduces heat stress, with the cooling effect of tree shade lowering the apparent temperature by up to 2 degrees Celsius (Klok et al., 2019). In addition, it is possible to limit the negative impact of housing construction on nature if efforts are simultaneously made to transition to a circular economy. The use of biobased materials in construction is essential in this respect. For example, concrete can often be replaced by wood, and there are plenty of biobased materials that can be used as insulation. Exploiting the full potential of technology in new buildings alone would reduce carbon dioxide emissions in the Netherlands by 3.5 megatonnes annually (NIBE, 2019).

Nature in the Netherlands is a link in global natural systems

Our country's natural assets are also important because they form a link in a global network of ecosystems. For example, nature in the Netherlands plays an important role as a stopover site for migratory birds and fish (Ministerie van Economische Zaken en Klimaat [EZK], 2014). As such, it is a crucial factor in the broader context of Earth's natural systems, which are worth protecting.

2.2 Nature and biodiversity loss in the Netherlands

The acknowledgement that nature is vital to prosperity in the broader sense has become manifest in recent decades in various policies, treaties and declarations at both international and national level. While this is in itself promising, the state of nature is by no means so. Globally, nature is disappearing and the quality of the nature that remains is declining rapidly (IPBES, 2019; Europees Milieuagentschap, 2020). This is also the general trend in the Netherlands.

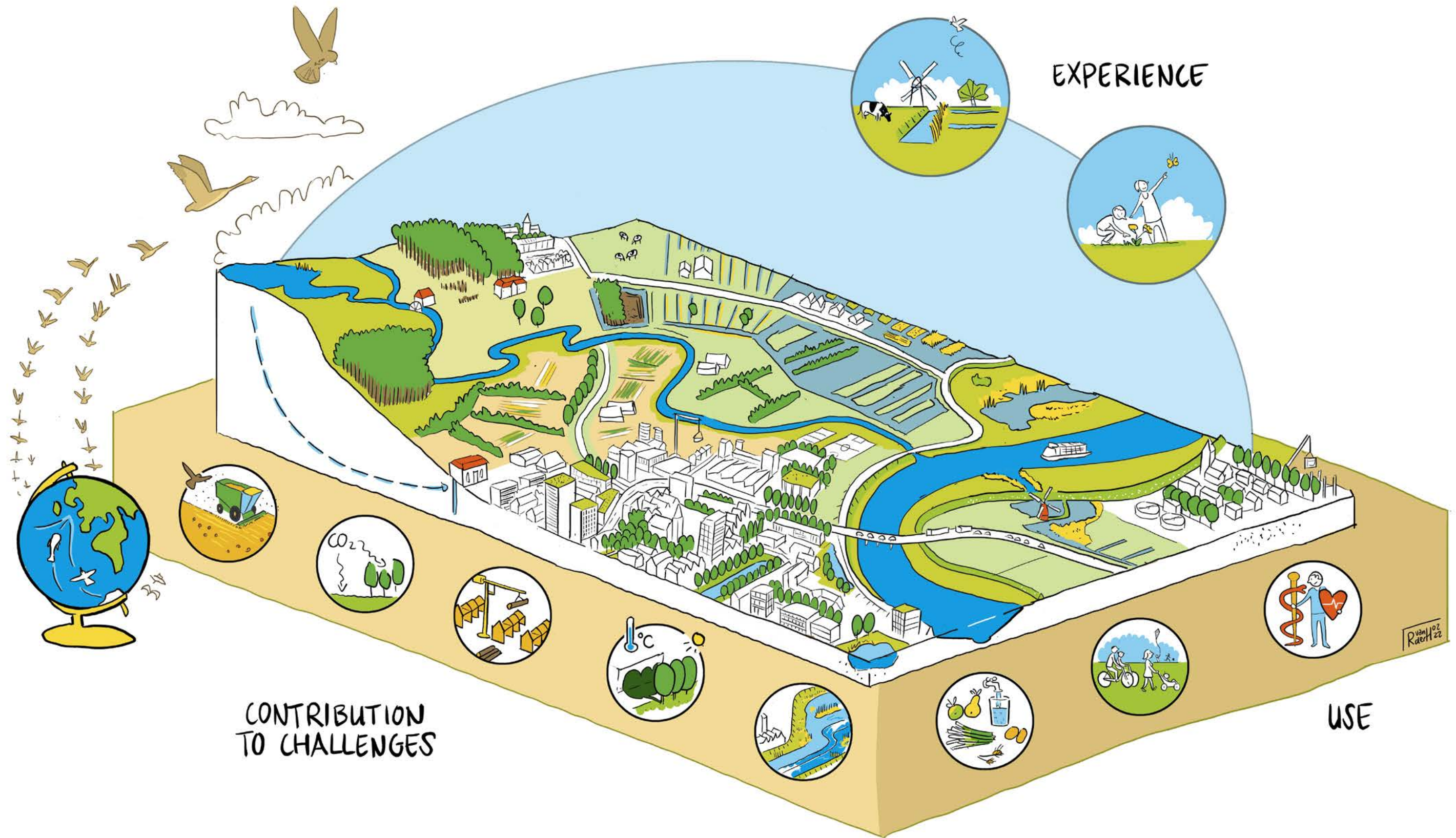
State of nature in the Netherlands

Despite national targets and international agreements, the Netherlands is performing poorly in terms of nature conservation and restoration. Targets are not being met, agreements are not being honoured. The loss of original natural assets in the Netherlands is considerably greater than the European average. Nature is deteriorating and vanishing at an alarming rate in our country (CBS, 2021; Europees Milieuagentschap, 2020), and the planned growth in protected areas has stagnated (IPO & LNV, 2021; LNV, 2021b). The necessary corridors between nature areas are also still far from being established (Planbureau voor de Leefomgeving [PBL], 2020a). Meanwhile, the amount of 'green' per inhabitant in both urban and rural areas has been dwindling for many years (CBS, 2021). In short, the pace at which the Netherlands is creating more nature and upgrading existing natural assets is simply too slow (LNV, 2021b).

In agricultural areas and in open nature such as heathland, the number of common animal species has dropped by more than 50% since 1990 (CLO,



Figure 2: Importance of nature



2020a; Wereld Natuur Fonds [WNF], 2020). Biodiversity is also at risk in our inland waterways, along our coasts and in urban areas; in the latter category, the number of common animal species declined by an average of almost 50% between 1990 and 2018 (CLO, 2020b).

The trend in our country's protected nature areas is more positive but even there, biodiversity is not *recovering* (PBL, 2020; CLO, 2020c).

It is encouraging that targeted measures within and outside protected areas have met with some success (see box).

Outcomes of biodiversity initiatives in the Netherlands

- The population of field birds (e.g. the western marsh harrier and the red kite) has been growing in recent years thanks to cooperation between farmers, the Field Bird Expertise Centre (GKA) and the provinces of Limburg and Drenthe.
- Otters had become extinct in the Netherlands in the late 1980s due to habitat fragmentation, traffic and pollution. After habitats and water quality were improved, the otter was reintroduced 15 years ago and a viable population has since been re-established. The otter population has spread across the central region of the Netherlands, known as the 'Rivers Region'.
- Dragonflies, caddisflies and other waterborne insects contribute to biodiversity growth. This is mainly due to the improvement in water quality since the 1980s.

Causes of nature and biodiversity loss

The main causes of nature and biodiversity loss in the Netherlands are well known:

- shrinkage and fragmentation of animal habitats due to housing and road construction and intensive agriculture;
- dispersion of environmentally hazardous substances, eutrophication and acidification due to agriculture, industry and traffic;
- groundwater depletion caused by agriculture, drinking water extraction and climate change;
- displacement of plant and animal species by invasive species, such as the crayfish or the muskrat, whether or not introduced deliberately;
- overexploitation, such as overfishing, overgrazing and nutrient depletion of farmland;
- poor management of road verges, watercourses and banks.

The relative importance of these factors for biodiversity loss may vary from region to region, from community to community, and from species to species, but when combined, their negative effect on nature in the Netherlands is intensified (Wageningen University & Research [WUR], 2019).

Nitrogen load leads to soil eutrophication and acidification and is a major factor in biodiversity loss in the Netherlands, but it is not the main cause everywhere. In nitrogen-sensitive areas, habitat fragmentation and/or soil desiccation may be more damaging (PBL, 2021). More than 40% of the Netherlands' surface area is covered by sandy soils and the soil desiccation



problem is growing (IPO & LNV, 2021). Today, 40% of the nature areas in these sandy regions are struggling with desiccation (CLO, 2018).

In short, nature and biodiversity loss in the Netherlands has various causes. Many of them have region-specific effects, with the impact on nature depending on the local soils, water system, landscape and land use, for example. Intensive farming is an important factor in several of the causes mentioned.

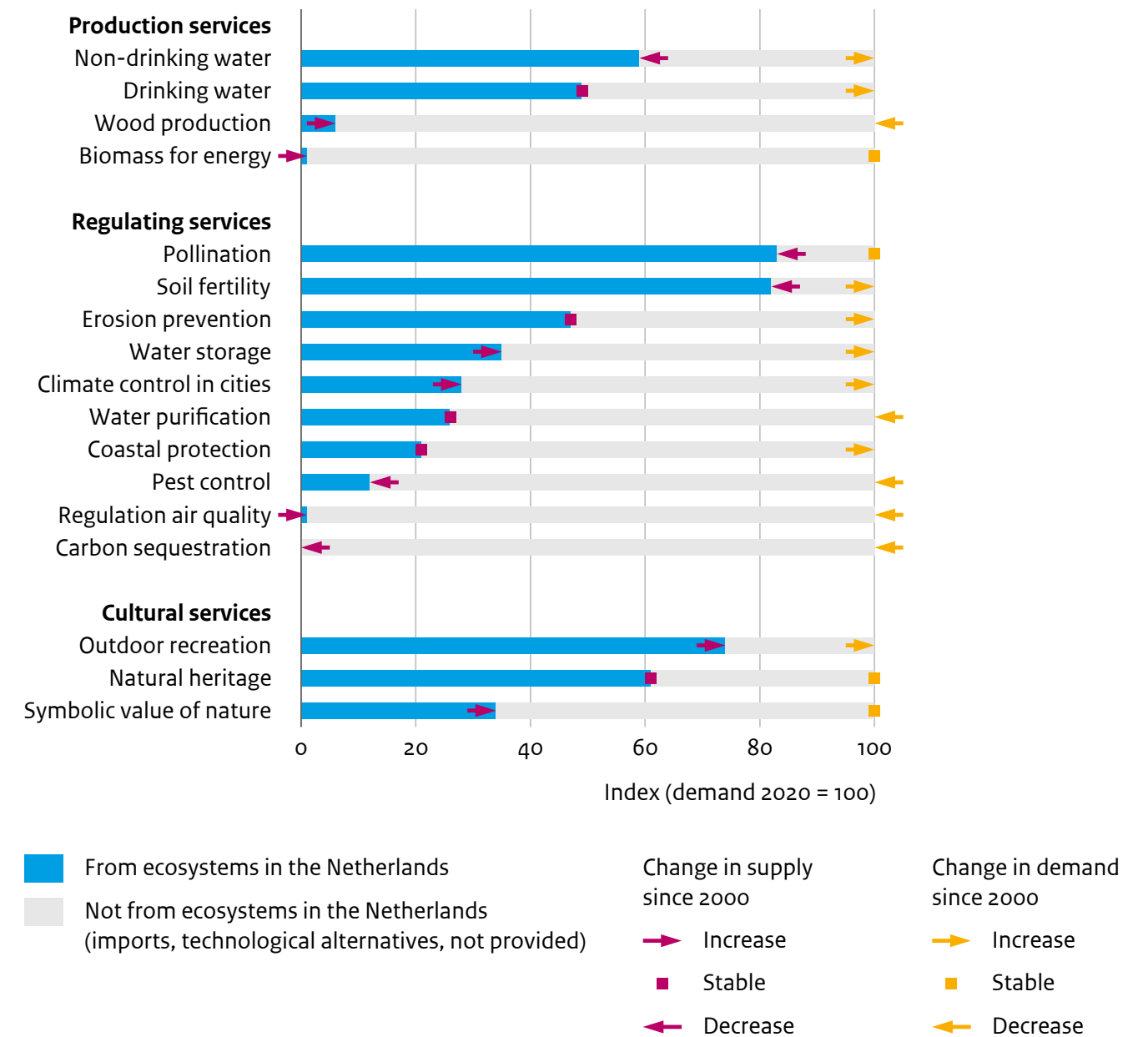
Ecosystem services at risk

The deterioration of nature in the Netherlands is leading to problems. After all, our society depends to a large extent on the ‘services’ that nature provides (ecosystem services), but their availability is now at risk. A recent study by Wageningen University & Research shows that in the past two decades, the gap between the supply of and the demand for most ecosystem services has widened (WUR, 2021).⁶ Figure 3 shows that the gap between supply and demand has grown for the services ‘non-drinking water’ (water for irrigation or industrial use), ‘drinking water’, ‘pollination’, ‘soil fertility’, ‘erosion prevention’ and ‘coastal protection’.

The figure also reveals that in no single instance is the entire demand for a service being met by Dutch ecosystems. This shortage can be compensated by imports, such as wood from abroad, or by alternatives, for example

⁶ The gap between supply and demand widens when the increase in supply lags behind a rise in demand (or when supply remains stable or declines). The arrows in Figure 3 do not make it clear whether the increase in supply has lagged behind the rise in demand, and therefore whether the gap between the two is growing. See De Knegt et al. (2020).

Figure 3: Ecosystem services, supply and demand



Source: CBS et al., 2022



using fertiliser to improve soil fertility. However, these options also have drawbacks: importing wood increases the ecological footprint elsewhere, and using fertilisers has an environmental impact. If services are and remain in short supply, problems may ensue. One example is the shortage of natural water purification, which has led to most Dutch surface water not complying with water quality standards (WUR, 2021).

Other studies also suggest that several ecosystem services are at risk. For example, soil fertility in the Netherlands is declining due to over-intensive use of agricultural and forest soils. That decline is having an impact on other services as well, such as the retention capacity of soil and its contribution to carbon sequestration (Rli, 2020). The National Institute of Public Health and the Environment (RIVM) has also noted growing water quality and supply problems in more than half of the groundwater wells used for drinking water extraction in the Netherlands (Van Driezum, 2020).

A growing gap between the need for and the availability of ecosystem services could create major economic and social risks, and affect the prosperity and wellbeing of the people of the Netherlands. It also contradicts a policy aim: to make sustainable use of these services.





3 SHORTCOMINGS IN NATURE POLICY

Dutch nature policy is falling short in meeting its objectives. In this chapter, we analyse the reasons, of which there are four. First of all, the focus of nature policy is too narrow. Second, nature is too often regarded as a separate challenge alongside the other challenges facing society. Third, nature often loses out when policymakers weigh its value against economic and political interests. And fourth, the authorities do not cooperate closely enough in implementing nature policy.

As we described in Chapter 2, nature in the Netherlands is in a terrible state. Dutch nature policy is failing to meet its objectives – objectives that are in fact largely the product of international agreements⁷ to reduce environmental pollution, tackle the underlying causes of biodiversity loss and preserve ecosystem services, for example. The Netherlands is failing to comply with these agreements or is doing so only in part. The same can be said for its compliance with EU directives on nature conservation, biodiversity, water quality and landscape quality.

⁷ The Netherlands committed to the Aichi Targets in 2010.

Neither has much come of the agreements made by the national and provincial authorities concerning joint efforts to achieve a transition to a 'nature-inclusive society', in which social and economic activities no longer have a negative impact on nature and biodiversity and in which the opportunities that nature affords are used to address the challenges facing society.

In the following sections, we discuss four reasons for the shortcomings that prevent Dutch nature policy from achieving its objectives.

3.1 Focus of nature policy too narrow

Policymakers aiming to establish favourable conditions in protected nature areas define the concept of 'nature' so narrowly that the policy has only limited effect. This is reflected in the fragmented protection of nature, the disregard for nature *outside* protected areas and the perception of many people that nature is simply too far away for them to reach.

Fragmented protection

As it stands, Dutch nature policy focuses mainly on protected areas, which are treated as isolated nature reserves. In reality, that policy is failing to adequately protect these areas and species in the Netherlands because it ignores the fact that they are part of much larger ecosystems extending beyond the boundaries of protection. Preservation of nature areas and their plant and animal species depends heavily on the landscapes outside their

boundaries. This is because many animals use surrounding areas to forage for food, or cross those areas on their way to overwintering sites.

For a nature area to be healthy, moreover, it must be part of a larger landscape with robust soil, water and ecological systems. This means that the structure and management of the surrounding landscape must also be robust. For example, it may be necessary to consider the larger landscape setting when planning water management measures for a nature area (Commissie Verkenning Nationale Parken, 2020).

The development of New Style National Parks, initiated by the national government in 2015, is an example of this approach. In New Style National Parks, protected nature areas are embedded in the wider environment and nature is linked to socio-economic activity (see box), a development that is also compatible with nature-inclusive aspirations. However, the statutory criteria that an area must meet for designation as a National Park (Article 8.3 of the Nature Conservation Act) stress protected natural assets, and that makes it difficult for New Style National Parks that have a broader orientation to qualify for designation. Two such applications have not been awarded formal National Park status so far, even though the associated plans were generally well received (LNV, 2021c; Adviescommissie Nationale Parken, 2021; Ketelaar, 2021).



New Style National Park

The existing National Parks and other Natura 2000 nature reserves are relatively small 'green islands' in the landscape. Their limited size leaves them vulnerable to external influences, such as nitrogen emissions.

In many cases they are relatively isolated from one another, making it difficult for plant and animal species to move between them.

Scaling up a National Park to a New Style National Park will ensure that the nature areas at their cores are surrounded by a spacious landscape zone in which nature, landscape and cultural heritage converge. The New Style National Parks will also be connected to one another by ecological corridors (Nationale Parken Bureau, 2018).

Nature outside nature reserves disregarded

At present, most of the focus in nature policy is on creating the Netherlands Nature Network (formerly known as the National Ecological Network, NEN), protecting rare and vulnerable species and habitats in internationally protected nature areas (the Natura 2000 sites) and restoring the ecological quality of water (pursuant to the European Water Framework Directive).

This policy focus is mirrored in the Ministry of Agriculture, Nature and Food Quality's budget allocation for nature. While hundreds of millions of euros are being earmarked to implement the EU nature directives and for nature restoration in protected areas, in 2022 the national government will only allocate approximately €6 million to nature-inclusive agriculture and building and to the development of New Style National Parks – among other things.

The unilateral focus on protected nature areas is a major constraint. In the past decade, policy efforts have been limited mainly to what the Netherlands is required to do as an EU Member State. Other components of nature policy, such as state funding for the Netherlands' National Landscapes, have been abandoned. While there is a legal obligation to protect endangered plant and animal species outside the nature reserves as well, it is hardly ever acted upon or enforced. In that respect, nature is often assigned less weight than other interests, at the expense of nature outside the protected areas in terms of both numbers and quality.

For example, there have been no new quality requirements for landscape or nature in agricultural areas in recent decades. Nature conservation organisations have also concentrated primarily on the protected areas, allowing agriculture to operate with considerable latitude in the countryside, 'letting the farmers off the hook' (Fedde, Feddes & Pols, 2012; CLO, 2020a, 2020b; WNF, 2020; Van der Putten, 2019).

The national and provincial authorities are working together to improve biodiversity and water quality in agricultural areas through the Agricultural Nature and Landscape Management subsidy scheme (ANLb), but the initiatives that have received funding are confined to a small proportion of farmland acreage. In 2020, this particular form of agricultural nature management was practised on only 5% of all farmland. This is not enough to ensure favourable conditions for maintaining meadow bird populations, for example.



Deterioration of agricultural areas

While the expanse of protected nature areas in the Netherlands has increased steadily since the 1990s, agriculture has simultaneously undergone a process of industrialisation, i.e. large-scale, intensive crop and animal production (CLO, 2020a; WNF, 2020; Van der Putten, 2019). This trend has resulted in the disappearance of landscape elements and the persistent overuse of fertilisers and crop protection products. Conditions conducive to biodiversity and the quality of nature have therefore deteriorated dramatically.

Current Dutch nature policy does not include an active, coherent national strategy addressing the quality of nature in urban areas or adjacent to infrastructure. Only a few municipal authorities, among them those of Amsterdam, The Hague and Tilburg, are taking action to enhance the quality of nature in and around their cities.

Nature areas are becoming harder to reach

The focus on protected nature areas in current policy has also increased the geographical distance between many people and nature. Although ramblers, sports enthusiasts and other leisure users are welcome in protected areas, these areas are hard for some to get to. A growing number of people now live in cities and often quite far from protected nature areas, especially if they do not have a car.

Social inequality: Not everyone has access to nature

Six out of ten Dutch people who never or almost never go to a nature reserve would like to do so more often. Factors such as time, geographical distance and money are obstacles to being in nature (I&O Research, 2021). There are also disparities within city limits. People in disadvantaged neighbourhoods often have poorer access to local and quality green spaces (De Vries, Buijs & Snep, 2020). Access to nature areas or attractive green surroundings is unequal in the Netherlands.

3.2 Insufficient links between nature policy and other policies

The government aims to interweave the challenges related to nature with other societal challenges and to move towards a nature-inclusive society (EZK, 2014; LNV, 2020b). Provincial authorities are endeavouring to promote nature-inclusive agriculture in this context, for example in living labs, pilot projects and networks for knowledge-sharing. Well-intentioned parties in society, however, face obstacles when attempting to combine the challenges of nature restoration with other challenges (PBL & WUR, 2020). Below are some examples:

- Many farmers see opportunities to adopt nature-friendly farming practices, but present circumstances make it difficult for them to convert these opportunities into a revenue model. They are also hampered by rigid government regulations on mowing dates and by strict eligibility



criteria for receiving compensation for meadow bird management (Westerink et al., 2018).

- The construction sector and nature conservation and environmental organisations see opportunities for nature-inclusive construction and planning of residential areas by combining the large-scale construction of housing with the greening of cities and villages. What they lack, however, are clear policy guidelines for nature in new building construction and building renovation. Without government frameworks, there can be no level playing field and green building and green renovation will never get off the ground (Manifest bouwen voor natuur, 2021).

Another factor that makes it difficult to link nature and other policies is the national government's budgeting rules. It turns out that authorities have trouble combining government budgets so as to turn them into a single budget supporting a region-specific approach. That hampers their ability to tackle both nature-related and spatial planning challenges simultaneously at the regional level, for example with a combined policy on nitrogen emissions, groundwater depletion and the quality of nature in rural areas, or by investing in planning solutions that contribute both to increasing the housing stock and improving biodiversity. The current budgeting rules in the Government Accounts Act are at odds with such 'decompartmentalised' funds (Rli, 2021b).

3.3 Nature not given enough weight as a factor in economic and political decision-making

Despite public concern and alarming warnings by experts about the state of nature in the Netherlands, nature still figures poorly in economic and political decision-making processes. It is often perceived as an expense and as a fringe interest that hampers economic growth. We believe there are three reasons for this:

1. Once nature has been lost, subsequent generations hardly miss it.
2. Ecosystem services are undervalued.
3. Nature is considered 'free' and an inexhaustible resource.

What has been lost is not missed

The Dutch landscape has changed dramatically in just a few generations. Once common plant and animal species have disappeared and many of those that have survived have experienced a sharp decline in numbers. But however committed most Dutch people are to nature, they are scarcely aware of these changes. We suffer from collective amnesia, generation after generation. We do not know what we have lost because in most cases we never experienced it ourselves (Kuiper, 2021). We can hardly imagine the abundance of nature that our country possessed only a short time ago. This shifting baseline (see box) is one explanation for the lack of political urgency.



Shifting baseline

The term 'shifting baseline' was coined by marine biologist Daniel Pauly in 1995. He described how each generation of commercial fishermen based their assessment of the fish stock on their own experience. Over the longer term, what was perceived as a 'good catch' therefore shifted, with a kind of 'nature amnesia' developing without a broader historical perspective on fish stock trends (Geelen, 2021).

Nature is inherently dynamic, but if decline sets in too quickly and is too widespread, the relationships necessary to maintain an ecosystem will vanish and the system will break down. To prevent biodiversity loss and preserve ecosystem services, it is not absolutely necessary to recover *everything* that typified nature at a particular time in history. To be effective, however, nature policy must focus on the long-term functionality of ecosystems that are appropriate to an area.

Ecosystem services are undervalued

Current Dutch nature policy has little regard for the significance of good quality nature for society. The services rendered by nature, i.e. ecosystem services such as clean drinking water and clean air, are consistently undervalued. Current policy also largely disregards the risks posed by depletion of these services (De Nederlandsche Bank [DNB] & PBL, 2020), ignoring the critical role that robust nature plays in ensuring broad prosperity and resilience in the Netherlands. This has a knock-on effect

in political and economic decision-making, in which nature often goes unappreciated and is not accorded its full due.

We can illustrate how government undervalues nature by considering the example of the drinking water supply. Nature plays a crucial role in this context. The water beneath nature areas is relatively clean thanks to natural purification. Soil pollution, however, is reducing the number of available subsurface sources of drinking water, requiring more intensive (and expensive) treatment. Drainage, climate change and longer periods of drought are also increasingly affecting the supply of drinking water, especially on higher-lying sandy soils. Companies that supply drinking water in the Netherlands are increasingly sounding the alarm: the growing demand for drinking water (see Figure 3) is jeopardising the security of supply. Under these circumstances, it would be logical to focus on soil remediation and controlling soil desiccation. What drinking water suppliers are doing instead is examining whether more drinking water can be extracted from Natura 2000 areas. In seeking to preserve these areas, however, current legislation leaves little scope for subsurface extraction there. Some drinking water suppliers therefore see the protection of nature areas as an obstacle (Harmsen, 2022), but in doing so, they are grossly underestimating the value of nature for drinking water production.

Officially, it is standard practice among policymakers to consider the value of nature in their social cost-benefit analyses. However, such analyses are often limited to examining potential adverse effects on species and habitats protected by law. The experiential value of nature for the public or



the availability of essential ecosystem services is more difficult to quantify and can often only be described in qualitative terms (CE Delft & Arcadis, 2018). The risk is that these factors will be relegated to the background in the analysis (Rli, 2021c). What is more, a social cost-benefit analysis is not compulsory in all cases. Authorities can decide to use a more lenient instrument.

Nature is considered 'free' and an inexhaustible resource

When it comes to economic activity, the services that nature provides are seemingly available 'free of charge'. Decision-making on economic activity rarely considers the risk that these resources might be depleted one day. Overconsumption of natural assets is also not reflected in the market price of products or services. The financial incentives of the current economic system do little if anything to check activities that damage nature and offer almost no reward for activities that enrich it.

We see this mechanism at work in the way EU agricultural payments are allocated, for example. Nature and biodiversity loss are not taken into account, or only to a very limited extent. To receive these payments, agricultural enterprises must comply with national guidelines for 'good agricultural and environmental conditions' (GAEC). These conditions are not geared towards preventing agricultural activities from having a detrimental effect on protected nature areas, however. Only payments for agricultural nature and landscape management are subject to criteria meant to protect biodiversity in rural areas, but nature and landscape management (see also

section 3.1) represents only a very small proportion of the EU's common agricultural policy.

The EU's new common agricultural policy will reward future-proof farming more generously, or so it is intended (LNV, 2021a). Farmers will receive a payment per hectare if they choose to meet specific requirements, for example in terms of carbon sequestration, improved soil and water quality, reduced use of crop protection agents and a better quality of nature. Farmers must achieve a minimum number of points for each policy objective to qualify for payment and can receive a larger payment for points in excess of the minimum (LNV, 2021a). Some Dutch municipalities already have a subsidy scheme for farmers based on a points system (see box).

Midden-Delfland Green Fund

Four municipalities surrounding the Midden-Delfland moorland have set up a joint green fund to finance the conservation and management of nature, landscape and cultural history there. The fund pays agricultural enterprises for green services based on a points system. The aim is to preserve the agricultural landscape and improve the relationship between urban and rural areas.

In other sectors, too, government policy has so far offered few financial incentives to prevent damage to nature or to reward nature enrichment. For example, it facilitates industrial groundwater extraction by charging very little for it (Waterforum, 2020).



3.4 Authorities do not cooperate closely enough

The national and provincial authorities have concluded a succession of (sector-specific) agreements in recent years aimed at improving the quality of nature, so far without much success. Cooperation between them and with other parties on such policy has not been very effective to date. As a result, it is proving difficult to kick-start an approach that addresses both nature and the other challenges that society faces.

Role of the provincial and municipal authorities and water boards

Since 2013, it has been largely up to the provincial authorities to interpret and implement nature policy. The policy objectives that they must achieve are laid down in the Nature Pact (IPO & LNV, 2013), later expanded into a joint ‘ambition document’ (IPO & LNV, 2019). It is the responsibility of the provincial authorities to achieve the ambitions and objectives thus established, which requires them to coordinate with one another and with water boards and municipal authorities on many aspects. After all, the success of a provincial nature policy depends in part on the measures adopted in adjacent regions, for example with regard to water management or exotic species. However, it is precisely these interdependencies that are largely ignored in practice. The necessary coordination is absent and the authorities often seem to be working at cross purposes. Partly as a result, efforts to meet the national nature policy objectives are failing (PBL, 2020).

Role of national government

It follows that in such a situation, the national government (in this case, the Minister of Agriculture, Nature and Food Quality) should intervene. After all, the ultimate responsibility for achieving the national objectives lies with the national authorities. For some of these objectives, it is also the Minister of Agriculture, Nature and Food Quality who is accountable to the EU (Van den Berg & Korsten, 2020; Arcadis, 2021) and to global forums (such as the platform of parties to the Biodiversity Convention).

The national government has the authority to intervene at provincial level, for example if a provincial authority neglects its duties in implementing nature policy. The national government can also recover any EU fines levied for non-compliance with nature protection agreements from local authorities.⁸ However, the power to intervene means that the national government must track progress towards achieving policy objectives, and that is not yet the case, at least not to any systematic extent, at the provincial level. For example, the Ministry of Agriculture, Nature and Food Quality does not know whether implementation of the Natura 2000 management plans is on track. Independent oversight and monitoring of progress towards achieving policy objectives is non-existent at both the national and provincial levels (Van den Berg & Korsten, 2020).

⁸ The national government has this authority by virtue of the Generic Supervision (Reform) Act and the European Public Entities (Compliance) Act (NErpe).



Role of the municipal authorities

Municipal authorities have not been party to the successive administrative agreements regarding nature, such as the Nature Pact (2013), or been invited to help develop the Nature Programme. Neither do they have any official tasks under the Nature Conservation Act (IPO & LNV, 2013; LNV, 2020b). But municipal authorities do play a one-stop shop role in nature policy. They are involved in the Nature Conservation Act as a licensing authority and in planning and managing public green spaces. Above all, they play a prominent part in efforts to build a nature-inclusive society. Like the water boards, municipal authorities are also involved in tackling challenges within the framework of the Vital Rural Areas Inter-Administrative Programme and in managing several National Parks.

A number of municipalities are working actively to turn public spaces into green spaces or are combining the creation of urban green space with the need to increase the housing stock, thereby enhancing biodiversity within municipal boundaries. It is proving difficult to develop a coherent approach, however, in part due to compartmentalisation of national government programmes, inadequate budgeting for management and a lack of knowledge (LNV, 2021d).





4 SOLUTIONS AND RECOMMENDATIONS

The analysis of the Netherlands' nature policy presented in the previous chapters leads us to conclude that our country is facing a crisis of biodiversity. The crisis is urgent and must be prioritised in policymaking. In this chapter, we identify four possible solutions to this crisis that should be pursued simultaneously. We also describe what action the authorities can take in the form of specific recommendations.

Nature is declining at an alarming rate worldwide and the Netherlands is no exception in that regard. From agricultural areas to nature reserves and from inland waters to urban areas, the quality of nature and biodiversity is declining everywhere. This is a troublesome development, because robust nature is essential for human existence. The biodiversity crisis that our country faces is related to the climate crisis and is also of a similar magnitude.

It is crucial for the Netherlands to reverse the decline of its natural assets and to restore nature. We must act now to prevent irreparable damage. To continue along the same path, with the existing nature policy, would

be wholly inadequate. The urgency of the situation and the opportunities at hand lead us to argue that the issue of nature should be prioritised on the political and administrative agenda. The plans set out in the coalition agreement will certainly help. The two new funds (amounting to €60 billion) will facilitate many of the necessary investments. The coalition's decision to take a regional approach is, we believe, another step in the right direction.

What we envisage is a nature-inclusive Netherlands: a country where nature is everywhere and for everyone, with robust nature areas, exceptional plant and animal species, and landscapes of outstanding beauty, and with plenty of green space and open water beyond the protected nature reserves - in agricultural areas, villages and cities. In this country, every person can enjoy nature to the full in their own street and neighbourhood and boost their physical and mental health, and nature policy is embedded in other policies, so that the interests of nature are explicitly taken into account in economic and political decisions.

Below, we outline four possible solutions leading to a nature-inclusive Netherlands such as we have just described and make associated recommendations. We consider that changes must be made in: (1) the focus of nature policy, (2) the links between nature policy and other challenges facing society, (3) the weight given to nature as a factor in economic and political decision-making, and (4) cooperation between authorities.

Figure 4 shows that these four solutions are necessary to reverse biodiversity loss and achieve biodiversity recovery.



4.1 Broaden the focus of nature policy: Nature everywhere and for everyone

It is important to broaden the focus of nature policy for several reasons. First of all, nature will be within everyone's reach that way, even close to home, and therefore contribute to people's health and wellbeing. Second, nature as a whole will be stronger as a result. This is important, because the quality of nature outside the protected areas is declining rapidly. By raising the quality of nature to the required minimum there too, it will be easier to attain the nature objectives within the protected areas and preserve the Netherlands' unique and endangered natural assets as a whole while simultaneously adhering to our international commitments. In short, a broader focus will make the Netherlands' nature policy more generally effective.⁹

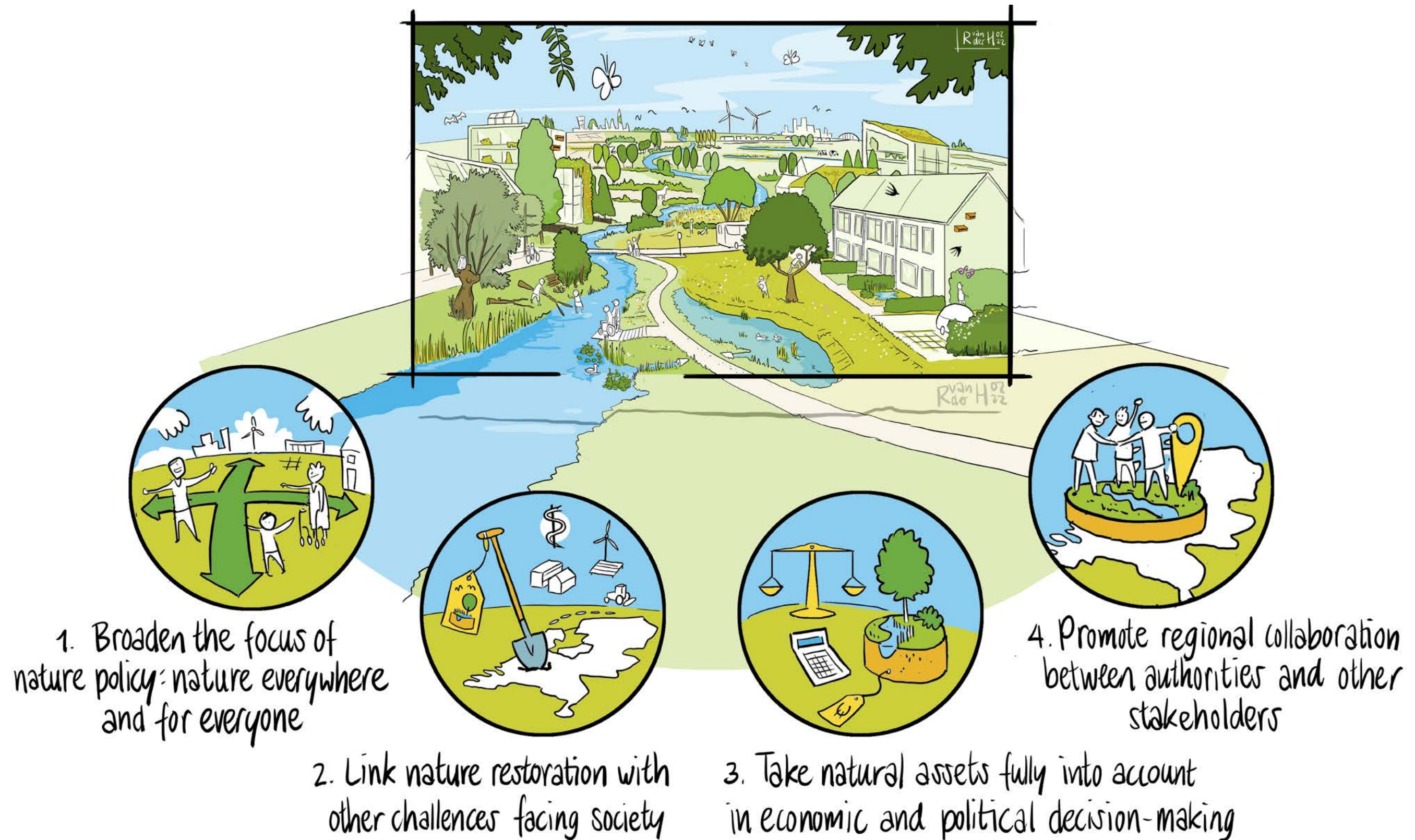
The concept of a 'basic quality standard for nature' offers guidance when pursuing a minimum level of quality for nature outside the protected areas (both in rural and urban settings). It refers to the set of conditions that must, at the very least, be met in a specific region to achieve or maintain a minimum quality standard for nature there, so that common species become common again or remain so (Biesmeijer et al., 2021).

Specifically, there are three sets of conditions that must be met to arrive at a basic quality standard for nature:

⁹ The coalition agreement introduces the concept of the 'landscape area' as a new land use class. The concept does not appear to be at odds with a broader focus on nature. However, it has not yet been elaborated and is therefore not discussed in this report.



Figure 4: Four solutions for biodiversity recovery in the Netherlands



1. *environmental conditions* (abiotic factors such as water levels and the quality of soil and water);
2. *spatial planning conditions* (such as land division and landscape elements, road and waterway infrastructure and leisure facilities);
3. *land use and management conditions* (such as the intensity of land use and the type of management).

The relevant conditions vary from region to region and are derived from ecological analyses, type of landscape and land use, and the cultural-historical and experiential value of the region. The frame of reference for common species of flora and fauna is based on ecological analyses and drawn up in close consultation with local residents and stakeholders. Together, they decide which species are indigenous to the region and should be protected and preserved. Once the (region-specific) conditions have been met, common indigenous species will thrive there or return to the region.

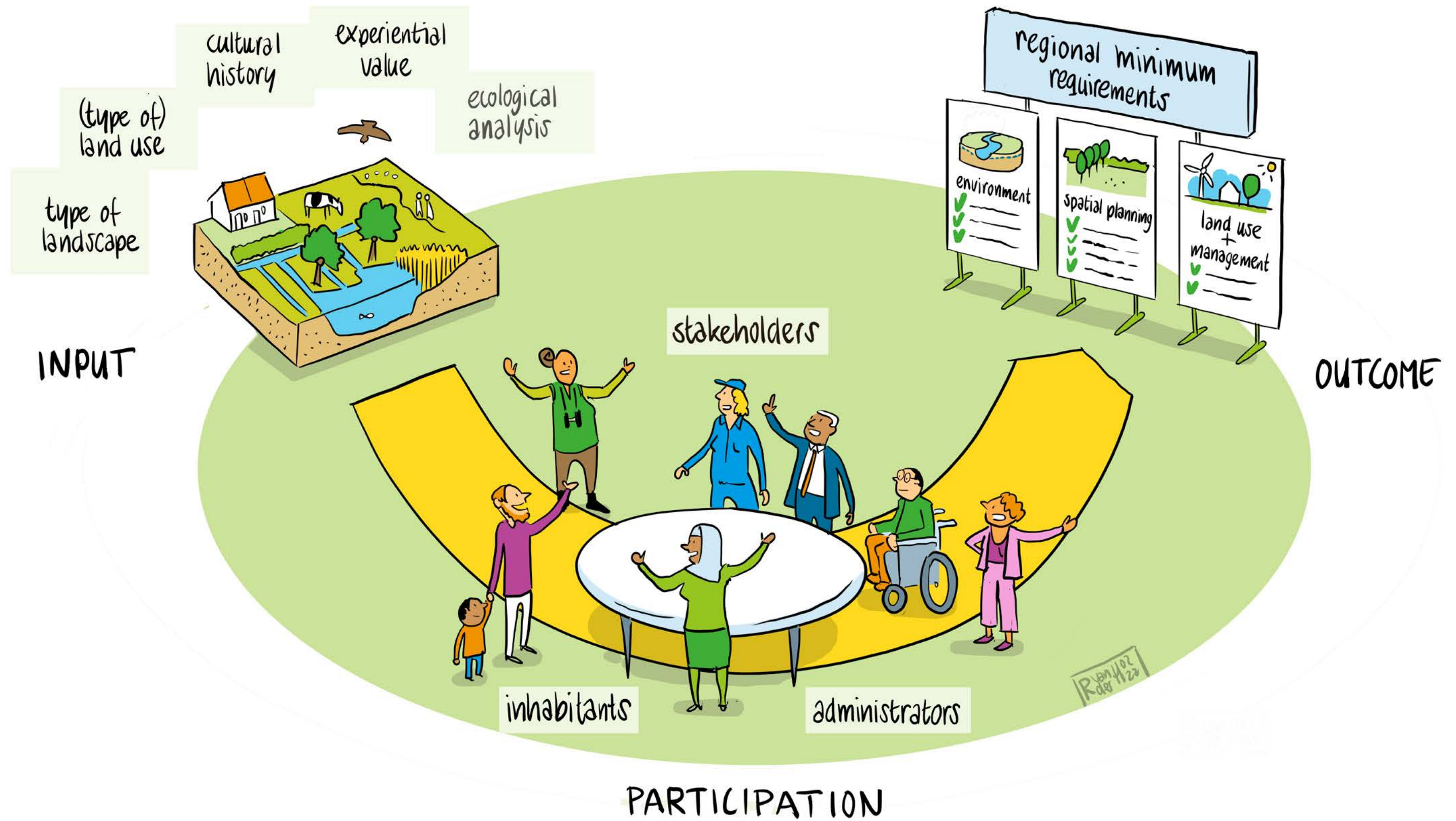
To establish a basic quality standard for nature outside nature areas, the focus of nature policy must be broadened. Action must also continue to be taken in and around the protected nature areas. This solution addresses both the basic quality standard and the highest quality standards. We therefore make the following recommendations:

Recommendations

- National and provincial authorities: Finish expanding and developing the Netherlands Nature Network and do not jeopardise the protection of Natura 2000 areas. This is an important factor in achieving the conservation targets agreed at international level.
- National, provincial and municipal authorities: Ensure that regional environment and planning strategies establish a minimum quality standard for nature in those regions (see also section 4.4). Municipal authorities: Incorporate these minimum quality standards into the municipal environment and planning schemes and into planning guidelines for public spaces; this is important both for new buildings and for existing neighbourhoods.
- National authorities: As part of the ecological authority proposed in the coalition agreement, set up a national expertise network for nature to support the provincial and municipal authorities in establishing the basic quality standard for nature, region by region.
- National authorities: Amend the Nature Conservation Act (to be implemented as the Environment and Planning Act) to allow for the nature-inclusive development of larger regions legally feasible in accordance with the 'New Style' National Parks.
- National authorities: Support the movement towards a nature-inclusive society with nature education programmes.



Figure 5: Determining the region-specific conditions leading to a basic quality standard for nature





4.2 Link nature restoration with other challenges facing society

We see numerous opportunities to link nature restoration, both within and outside protected areas, with the major challenges facing Dutch society. This is true first and foremost for the challenges that have a spatial dimension, namely housing, climate change and the energy transition, and sustainable agriculture. In our advisory report *Give Direction, Make Space!* (Rli, 2021b), we noted the necessity of taking an integrated approach to the various challenges we are facing, simply because of the limited space our country has at its disposal. The national and provincial authorities, along with a broad coalition of civil society organisations, have recently drawn up proposals for an integrated and nature-inclusive approach in both urban and rural settings (Colleges van Gedeputeerde Staten et al., 2021; Samen voor biodiversiteit, 2021; LNV et al., 2021). The water boards have also chosen to take a nature-inclusive approach (Unie van Waterschappen [UvW], 2020). Several rural and urban spatial planning projects have revealed the benefits of integrated and nature-based solutions in recent years (see box).

Examples of integrated and nature-based flood protection

The Sand Motor near Kijkduin was created in 2011. It consists of a body of sand in the sea that protects the coastline from erosion. The structure not only improves flood protection but also enhances biodiversity and creates new opportunities for leisure activities.

Flood protection has been successfully combined with nature enhancement programmes in other parts of the country as well.

Examples include the Room for the River and the Meuse Works programmes. Their significance for nature conservation has in many ways exceeded expectations. For example, appropriate management appears to have led to a spectacular increase in the number of fish species (Stoffers et al., 2021).

The comprehensive solution we propose is consistent with the EU's Fit for 55 package supporting the European Green Deal and with international policy aimed at improving sustainability. The Commission and other institutions argue that natural processes should be prioritised in the quest for integrated solutions to spatial planning challenges; in other words, the emphasis should be on nature-based solutions (see box).

Nature-based solutions to spatial planning challenges

The traditional approach to spatial planning challenges is to tackle them with concrete, machinery and other 'hard' instruments. Nature-based solutions proceed from the idea that it is actually more effective to work with nature than against it. The force of nature can be used as an ally in problem-solving.

The European Commission (2021b) defines nature-based solutions as '[solutions that are] inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes



and seascapes, through locally adapted, resource-efficient and systemic interventions.¹⁰ Multifunctional solutions of this kind enhance biodiversity and support the ecosystem services that nature delivers (International Union for Conservation of Nature and Natural Resources [IUCN], 2020).

The coalition agreement provides for the establishment of two funds that can support an integrated approach to nature and other spatial planning challenges: the Climate and Transition Fund (€35 billion until end 2030) and the Transition Fund for the National Programme for Rural Areas (also called the 'Nitrogen Fund'; €25 billion until end 2035).

The Climate and Transition Fund will help to create the required energy infrastructure, put a green industrial policy in place and make transport and the built environment more sustainable. The Government intends to use the Nitrogen Fund to improve the quality of nature on a region-by-region basis by introducing measures to reduce nitrogen emissions and to restore and expand nature.

In addition to the societal challenges identified above, nature restoration can also help in the delivery of affordable and viable health care. Contact with nature has been shown to have a positive effect on physical and mental health and thus contributes to both preventative and curative care,

¹⁰ See https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en

thereby lowering the cost of care in the Netherlands. Within the limits of the Dutch Health Insurance Act, this effect would justify asking health insurers to help finance improvements in the quality of nature. The first steps have already been taken in the Healthy Green Living Environment Programme.¹¹

In our view, combining nature restoration with other challenges affords an excellent opportunity to build a nature-inclusive society and to establish a basic quality standard for nature (at the very least) everywhere in the country. We therefore make the following recommendations:

Recommendations

- National authorities: Make nature part of the *regional approach to the nitrogen crisis* and combine that approach with other national and regional challenges in those regions. Reach agreements about this with provincial and municipal authorities and water boards, and use the funds proposed in the coalition agreement to support these agreements. Make use of the national land bank announced in the coalition agreement to support regional processes. Incorporate the Forest Strategy into this.
- National, provincial and municipal authorities and water boards: Make clear to the companies in the agricultural sector which targets stem from a region's ecological challenges (Rli, 2021a). The requirements arising from a region-specific basic quality standard for nature offer guidance

¹¹ Health insurers are involved in the Healthy Green Living Environment Programme administered by the Ministry of Health, Welfare and Sport and the Ministry of Agriculture, Nature and Food Quality, for example in exploring the possibility of combining funding streams to invest in a healthy green living environment.



and may also help to improve operational conditions (e.g. resilient crops and pollination).

- National authorities: Conclude an administrative agreement with the *construction sector*¹² on the nature-inclusive planning of residential areas, new buildings and renovations, including the materials to be used. Incorporate the provisions of these agreements into housing deals. In addition, stipulate in the Environment Buildings Decree that nature-inclusive design, construction and renovation must contribute to attaining the minimum requirements for a region-specific basic quality standard for nature. Investigate whether the Nature Protection Act (to be implemented as the Environment and Planning Act) offers a basis for this. Ensure leeway for customisation to facilitate an integrated approach to spatial planning and to allow for regional variations on the basic quality standard for nature. The points systems already in use at various municipalities can serve as an example.¹³ Include a points system of this kind in the Guidance for decentralised regulations on climate-proof construction and planning [*Handreiking decentrale regelgeving klimaatadaptief bouwen en inrichten*] and incorporate it into future housing deals.
- National authorities: In conjunction with the Association of Netherlands Municipalities (VNG), the Association of Provinces in the Netherlands (IPO) and the Dutch Water Authorities (UvW), make nature-inclusive practices the starting point for addressing the energy transition. Make agreements with the energy sector on nature-inclusive design,

¹² Specifically, construction firms, property developers and area planners.

¹³ Points systems for nature-inclusive building plans are instruments used by municipal authorities to approve and compare proposals, e.g. for real estate planning.

construction and management of installations and buildings. Incorporate these agreements into the guidance and toolbox for regional energy strategies 2.0.

- National authorities: Make agreements with *health insurers* about how they can help improve the quality of nature in the living environment as part of preventative and curative health care.



4.3 Take natural assets fully into account in economic and political decision-making

The long-term importance of a robust economy requires the availability of natural resources. That availability, in turn, requires the sustainable use of ecosystem services. To make good progress towards building a nature-inclusive society, we must address the causes of nature loss and encourage activities with positive effects on nature and biodiversity. This means taking the broader value of nature fully into account in economic and political decision-making.

To facilitate the interweaving of nature and the economy, we advise using various instruments, ones that will redirect financial incentives and offer better guarantees for the value of nature in economic and political decision-making. To this end, the government can align with the EU's Non-Financial Reporting Directive (which requires companies to report on the environmental and social impact of their activities) and the EU's Green Taxonomy (a classification system for categorising green, environmentally friendly business activities).

The government could also make social cost-benefit analyses mandatory in government decision-making, and could more explicitly embed the importance of biodiversity restoration - including the experiential value for the public and the availability of ecosystem services - in the guidelines for social cost-benefit analyses relating to nature (*Werkwijzer Natuur*). It can, for example, do this by building on the experience gained in environmental economic accounting (UN SEEA, 2021).

In line with the foregoing, we make the following recommendations:

Recommendations

- National authorities: Link the forthcoming, stricter terms for EU agricultural subsidies (LNV, 2021a) to the aforementioned regional minimum requirements for a basic quality standard for nature (section 4.1). An independent certification authority can monitor the extent to which companies meet these requirements so as to qualify for eco-schemes. The authorities should then ensure an adequate level of enforcement (LNV, 2021a).
- National and provincial authorities: Link existing subsidies for (agricultural) nature management and landscape management to the regional minimum requirements for a basic quality standard for nature.
- National authorities: Introduce tax measures to tackle damage to nature. This can take the form of a tax on nitrogen emissions or stiffer charges for industrial groundwater extraction.
- National and other authorities: Improve the use of social cost-benefit analyses so that they give more consideration to preventing damage

to nature and to restoring biodiversity. As part of this, consider the experiential value for the public and the availability of ecosystem services.

- All public authorities: Set a good example. First of all, adhere to sustainable and nature-inclusive principles in managing, leasing and selling government-owned land. To this end, offer long-term leasehold and management agreements, as envisaged in the coalition agreement (Rli, 2021a). Second, extend the concept of sustainable procurement to include standard requirements for biodiversity in public tenders.



4.4 Promote regional collaboration between the authorities and other stakeholders

Integrating spatial planning challenges requires a region-by-region approach that can be implemented jointly by all parties involved, each one assuming its own role and carrying out its own tasks. We therefore support the integrated, region-by-region approach to the challenges of nature restoration, climate and water quality in rural areas, as proposed in the coalition agreement (see section 4.2).

Leeway is also needed to pool public funds. In our report *Give Direction, Make Space!* (Rli, 2021b) we proposed establishing a series of regional consultation bodies that would consider the spatial planning challenges at regional level in relation to one another. We also recommended that government budgets should be 'decompartmentalised' to facilitate an integrated approach.



A regional approach to nature and spatial planning naturally also requires *coordination*. The provincial authorities play the role of regional coordinator in regional processes (Rli, 2021b). In addition, more national coordination is needed to tie provincial objectives to national objectives (Natura 2000, Netherlands Nature Network, nature-inclusive society, biodiversity restoration). Regional authorities and also private parties need one another to make progress in improving the quality of nature. This requires monitoring and independent oversight, so that the parties can hold one another to account and so that government can intervene if necessary.

Parties have gained experience working with a regional approach in recent years, with public-private cooperation being facilitated in various pilot regions. One example is the island of Schiermonnikoog, where it took farmers, the authorities and nature organisations only five years to arrive at a joint approach to large-scale nature restoration that also offered farmers attractive long-term prospects.

In short: close cooperation between the authorities and other stakeholders ensures that nature and other challenges in a region can be addressed faster, better and often at a lower cost. In line with the foregoing, we make the following recommendations:

Recommendations

- National, provincial and municipal authorities: Ensure that nature-related challenges are linked to other challenges, for example in housing and energy, on a region-by-region basis so as to flesh out the intended basic

quality standard for nature (see also section 4.1). Adhere to the national agreements with the relevant sectors (see also section 4.2). Align this approach with the integrated regional consultation bodies previously proposed by the Rli (2021b), allowing for regional diversification.

- Provincial authorities: Apply this regional approach across all regions, whether rural or urban. Involve non-governmental parties and residents. Create links to the National Programme for Rural Areas.
- National and provincial authorities: agree to uniform reporting of operational and monitoring information regarding progress towards meeting the targets of the national nature policy, both in protected areas and elsewhere. This will give the national government, as the party responsible for the system, a clear idea of whether the targets are actually being met. To facilitate this, standardise data collection and self-reporting by all relevant authorities.
- National and provincial authorities: Be explicit about assigning the independent supervisory and inspection tasks for nature that are currently lacking at national and provincial authorities, for example to the Human Environment and Transport Inspectorate (ILT) and the environmental services. Ensure adequate staffing and funding. Where necessary, use existing authorisation to intervene within the context of intergovernmental oversight.



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Expert meeting 1 28-4-2021

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Expert meeting 2 27-5-2021

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Expert meeting 3 16-9-2021

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Expert meeting 4 28-9-2021

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OVERVIEW OF RLI PUBLICATIONS

2021

Farmers with a future. [‘Boeren met toekomst’]. December 2021 (Rli 2021/06)

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National Growth Fund. [‘Investeren in duurzame groei’]. October 2021 (Rli 2021/04)

Towards an integrated accessibility policy. [‘Naar een integraal bereikbaarheidsbeleid’]. February 2021 (Rli 2021/03)

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Hydrogen: the missing link. [‘Waterstof: de ontbrekende schakel’]. January 2021 (Rli 2021/01)

2020

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2019

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2018

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