



Ministerie van Binnenlandse Zaken en
Koninkrijksrelaties

Memorandum on Scope and Details

regarding the strategic environmental assessment for the
National Spatial Strategy

Date 24 May 2023
Status Final

*This report is an English translation of a document originally drawn up in
the Dutch language. In case of a contradiction, the Dutch text is leading.*

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Note to the reader

The development of the National Spatial Strategy involves making national, foundational choices in the short term and directional choices in the longer term. It is necessary to determine the environmental implications of these choices by means of a strategic environmental assessment (SEA). This memorandum describes the scope and level of detail of the SEA and how and to what degree (details) this assessment will be performed.

This document contains the following information:

- a detailed explanation of the strategic environmental assessment and the Memorandum on Scope and Details and the rationale behind its use (in chapter 2);
- a description of the challenges facing the Netherlands and possible future scenarios that will form the basis for the National Spatial Strategy (in chapter 3);
- the themes to be covered by the SEA and the way in which environmental effects will be assessed (in chapter 4);
- information on how this Memorandum on Scope and Details was drawn up and what opportunities exist for public participation (in chapter 5).

1 Towards a National Spatial Strategy

1.1 Major challenges require central coordination in spatial planning and a revised vision

The Netherlands is a small country facing major challenges. Less than a decade ago, the general opinion was that there were no more unfinished tasks in the area of spatial planning at national level. That would be difficult to imagine nowadays. The challenges are great and span all aspects of the environment. To ensure the Netherlands remains attractive and fit for the future, choices need to be made at national level.

Urgent challenges that our society needs to address include protecting our soil and water systems, climate change, defence, cultural heritage, nature restoration, the agricultural transition, creating a more sustainable energy supply, switching to a circular economy, transport and mobility, space for work and sufficient affordable housing. Each of these challenges makes demands on our physical space, which is why the Dutch government is taking the reins and drawing up a new National Spatial Strategy. In this policy, the government will make cohesive choices to ensure the best possible environmental quality for all people in the Netherlands – now and later, for us and for future generations.

The current National Strategy on Spatial Planning and the Environment (NOVI) responds to these challenges and is largely still up to date. Nevertheless, we want to do justice to recent policy developments, such as a stronger coordinating role in spatial planning for central government and new spatial choices set down in ongoing national programmes, such as for rural areas and the energy transition, and the decision to make water and soil lead considerations in spatial planning. We are therefore working on a new National Spatial Strategy, which will supersede the NOVI.

In doing so, we are not starting from scratch and are mindful that the Netherlands is not a clean slate. Where possible, current policy from the NOVI will be continued. In addition, we will base our policy on the foundational choices made in ongoing national programmes. These are currently being examined from a spatial planning perspective and prepared for implementation in the NOVEX process at provincial level. NOVEX represents an extension of the National Strategy on Spatial Planning and the Environment (NOVI). The outcomes of the NOVEX process and the latest findings from the national programmes will be incorporated into the National Spatial Strategy, ensuring cohesive choices and links with long-term perspectives.

The National Spatial Strategy will focus on the years 2030, 2050 and 2100. It will contain new directional statements for the longer term in particular (post 2030) and will look ahead to 2100. The directional statements will build logically on the ongoing national programmes, but will also offer insights into their long-term implications. Given the longer-term planning horizon, these statements will be less concrete in nature. This is even more true for the outlook to 2100, for example, for spatial development in relation

to climate change. How can we avoid making choices now that will hamper solutions in the long term or lead to higher costs to society?

1.2 The National Spatial Strategy: one vision for the Netherlands as a whole

The National Spatial Strategy will encompass at least the following:

- a vision with a description of the challenges to be addressed, the context in which we work and an overarching presentation of the Netherlands' longer-term development. This part of the Strategy will also describe the relationship between the key choices and directional statements, as well as the role of central government in the spatial development of our country.
- The choices and directional statements in the vision will be incorporated into a National Spatial Structure, with maps showing how and where the major spatial planning challenges can be addressed. In each case the Structure will also set out spatial principles for implementation.
- Further development of the vision will be anchored in a Policy Agenda, in which we describe current policy and the new directions to be explored.
- The National Spatial Strategy will conclude with a section on implementation, detailing cooperation, the use of legal instruments and investments, and a system for monitoring, evaluating and reporting on progress with the Strategy's implementation.

The vision will focus on the years 2030 and 2050 and will also look ahead to 2100. Text and maps will be used to explain the various elements. The maps for the periods up to 2050 and 2100 will be less concrete and leave various options open. The vision will be based on a 'layer approach', taking into account the subsurface, the water and soil system, existing cultural heritage assets and current infrastructure networks. At the same time, we will build a new foundation within the existing context.

The vision will present (1) a new balance between thriving rural areas, agriculture and nature, (2) future-proof transitions in the areas of energy, raw materials, circular economy, and traffic and transport and (3) socioeconomically robust cities and regions with healthy and sustainable spaces for living and working. The basis for all this is the existing physical environment with its values and characteristics. Moreover, the water and soil system is the lead consideration when it comes to making choices, in balance with the other issues to be addressed. The three elements of the vision build on the three perspectives set out in the letter to parliament on national coordination of in spatial planning, which linked up the relevant sector-specific topics where possible.

The vision will be fleshed out and incorporated into a National Spatial Structure. This will include maps showing the foundational choices for 2030 and the directional choices for 2050 for each sector-specific topic. The maps will not be geographically precise but rather conceptual visualisations of the National Spatial Structure at regional and provincial level, to clarify the connections and dilemmas at those scale.

1.3 **Alignment with new policy**

In the National Spatial Strategy we will also bring together new choices and policy arising from national programmes. These include the principle of water and soil as lead considerations in spatial planning (WBS), the National Programme for Rural Areas (NPLG) and the Energy Network Programme (PEH). We will also make national choices based on what we refer to as the 'land-use puzzles' and NOVEX areas at provincial and regional level. These programmes and elaborations can potentially lead to dilemmas and conflicting choices. The National Spatial Strategy will point the way to resolving these. Central government will cut the knot if the spatial planning responses to different national issues are incompatible or for reasons of spatial quality.

Water and soil-based considerations in spatial planning

Water and soil will be lead considerations in spatial planning policy. Over the past few centuries we have moulded the landscape and subsurface to our will, based on an age-old belief in the 'makeability' of our country, and aided by technology. This has produced many benefits for the Netherlands, but the negative consequences are clearly visible in the form of flooding, subsidence, groundwater depletion, soil and water pollution, heat stress and biodiversity loss. These problems are now being amplified by climate change, a trend that is set to continue into the future.

In order to achieve a sustainable, healthy and attractive living environment in the long term, it is necessary to 'listen' to what the soil and water 'have to say'. Aligning spatial choices regarding housing, the energy transition, nature, agriculture, infrastructure and the economy with the state and quality of the subsoil and the natural dynamics of water will help make land use more future-proof.

National Programme for Rural Areas

By 2030, the government wants to provide nature with room for restoration and reinforcement, improve the quality of water and soil, and do more to address climate change. This is being implemented through the National Programme for Rural Areas (NPLG), together with provinces, water authorities, municipalities, social partners, farms and other businesses, land owners and land users. Key objectives have been set in the NPLG in the areas of nature, water and climate. Stakeholders are examining the feasibility of an area-specific combined approach to achieve these goals.

Energy Network Programme

The Netherlands is aiming to reach net-zero carbon emissions from fossil fuels by 2050. We will use less natural gas and more solar and wind energy. Further expanding the electricity grid is essential in this respect. Growing use of hydrogen and new forms of heating, fuel and generating electricity also require space. The Energy Network Programme (PEH) sets out national frameworks to help public authorities and construction companies effectively plan this new energy infrastructure. The agreements made in the PEH apply to the whole of the Netherlands, with the exception of the North Sea.

'Land-use puzzles' and NOVEX areas at provincial and/or regional level

The WBS, NPLG and PEH are only three of many ongoing national programmes. In order to assess whether all the objectives and tasks in those programmes actually fit within actual and spatial planning constraints, the 12 provinces have been asked to translate the national challenges and goals into spatial policy and address them in combination with subnational issues. Tackling this 'land-use puzzle' at provincial level should make clear whether the programmes can be implemented within the spatial parameters of the province in question, or whether additional choices need to be made at national level. The latter could also lead to a redistribution of targets to be achieved within a province or between provinces. Delegating this process to the provinces can also provide information on the coherence between and possibly on the timing of the implementation of the different programmes.

In addition to this spatial coordination role per province, area-based coordination will be organised in regions where so many national-level issues are at play that area-specific planning and prioritisation are necessary. These are NOVEX areas where land use will need to be changed and/or substantially redesigned in response to the national challenges. For these areas it is clear in advance that several national parties will need to participate for multiple years in the development of perspectives and plans and in their implementation. Strategic decisions by all public authorities, private-sector parties and stakeholders in society in the development of an area will be underpinned by a joint development plan, including jointly coordinated implementation agreements and investment decisions.

Ensuring cohesion

The NOVEX and Mooi Nederland (Beautiful Netherlands) programmes and the drafting of the National Spatial Strategy will ensure that all the policies being developed are cohesive. The NOVEX programme focuses on provincial and area-based cooperation, on strengthening implementation capacity – including by assigning the Central Government Real Estate Agency the role of development support office – and on a data-driven approach. The Mooi Nederland programme deploys a cohesive approach to safeguarding the spatial quality and identity of the physical environment, by means of inspiring, organising and standardising. The products of both the NOVEX and Mooi Nederland programmes will be incorporated into the National Spatial Strategy, which will be drafted in close consultation with both programme teams.

1.4 Towards national foundational choices in the short term and directional statements for the long term

Spatial planning in our country is essentially about distributing scarce space. This is not only a technical challenge, but above all an issue of distribution, where bulldozing, 'anything goes' or 'first come, first served' approaches should be avoided. Through the National Spatial Strategy central government is taking up its coordinating role in the spatial domain. The choices made in the Strategy will be illustrated using sketches of maps of the Netherlands in 2030, 2050 and 2100. It will also include a section on implementation describing the long-term effects, safeguards and cooperation. Central government is thus charting a cohesive, national course in spatial planning, in the form of shorter-term foundational choices

and long-term directional statements that should eventually be reflected in provincial and local policy. These choices and statements made at national level will resolve the tensions between the different issues to be tackled and provide perspective for the long term. The environmental implications of this package of interrelated measures ('the preferred variant') will be determined in the SEA. The look-ahead to 2100 primarily involves options that we want to keep open and will not feature in the SEA.

2 Strategic environmental assessment for the National Spatial Strategy: insight into the effects of choices

2.1 Why a strategic environmental assessment?

The publication of this Memorandum on Scope and Details starts the SEA procedure

This is the Memorandum on Scope and Details (NRD) for the National Spatial Strategy, which represents an intensification of the NOVI. The NRD is the first step towards drafting a strategic environmental report (SEA) for the Strategy. It explains why a SEA is mandatory and describes the environmental implications of the choices made in the National Spatial Strategy. It also describes the key themes in relation to the physical environment and the alternatives that will be investigated. Relevant administrative bodies, legislative advisers and the Netherlands Commission for Environmental Assessment will provide advisory opinions on the SEA to be drawn up on the basis of this memorandum.

Purpose of the strategic environmental assessment

The SEA procedure serves two primary purposes: Firstly, providing insight into how plans will affect the physical environment. To this end, it is necessary to determine the current state of the physical environment (by means of an 'environment snapshot'), examine trends, developments and current policy affecting this, and estimate what the physical environment would be like if policy were to be continued unchanged (this is the reference situation). Secondly, providing insight into possible alternatives that would help achieve new and existing policy objectives. Weighing up these alternatives forms a key part of the SEA for the National Spatial Strategy.

Strategic environmental assessment in support of the National Spatial Strategy

The SEA procedure and the SEA itself will aid the development of a vision and decision-making on the new environment and planning policy in the National Spatial Strategy, as well as the national foundational choices and directional statements contained therein. This ensures that physical environment issues will be taken into account as early as possible when preparing the plans. A spatial analysis was already included in the letter on spatial planning submitted to parliament in May 2022. Presenting spatial alternatives (the variants, see chapter 3) is also key. This ensures that information relevant to decision-making on possible environmental effects is used during the process, leading to well-informed choices.

What is the physical environment and how do we determine the effects on it?

The announcement of the Environment and Planning Act introduced the concept of the 'physical environment' into spatial planning. While the Act does not provide a definition of this term, it does describe what it encompasses, i.e. buildings, infrastructure, water systems, water, soil, air, landscapes, nature, cultural heritage and world heritage.

When drafting the SEA for the NOVI, a 'Wheel of the Environment' was used to determine the policy's environmental implications. The tool will also serve

as the basis for the SEA to be drawn up for the National Spatial Strategy, in line with the national programmes, which also use the Wheel of the Living Environment to determine effects. More information on this can be found in chapter 4.

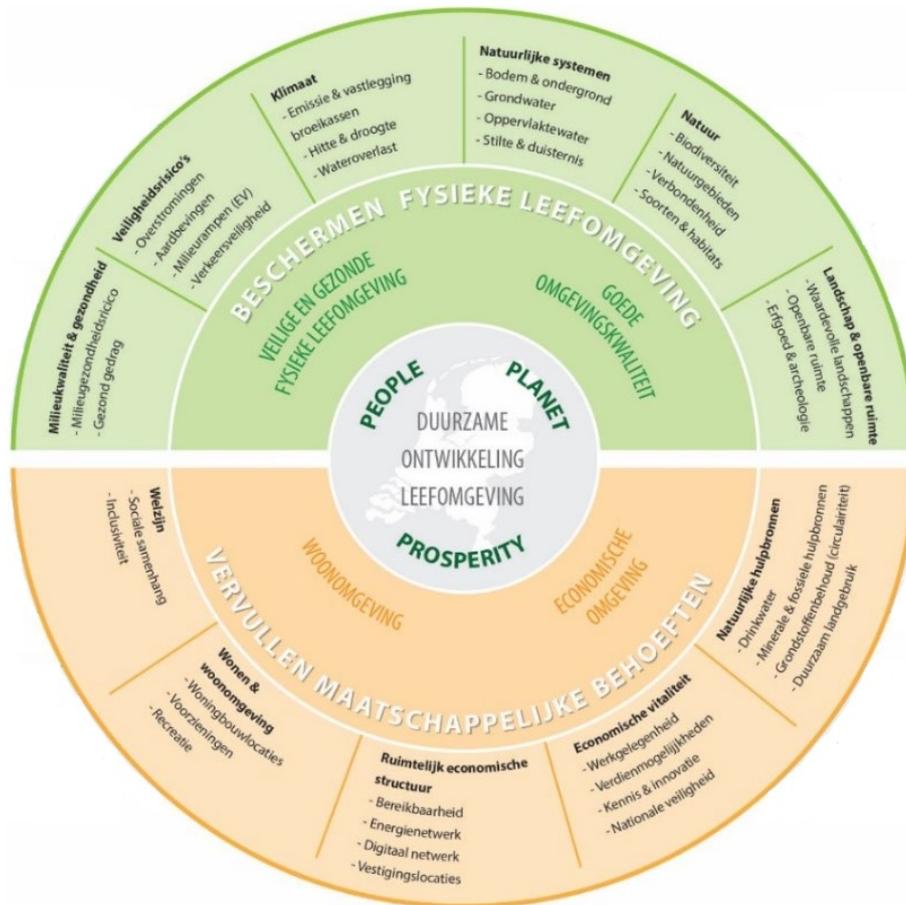


Figure 2.1: Wheel of the Environment: an assessment framework for the physical environment

2.2 The process and procedure for this strategic environmental assessment

Mandatory SEA procedure

Once adopted, the National Spatial Strategy will form the framework for future decisions on plans and activities that may have implications for the physical environment. A strategic environmental assessment (SEA) procedure must be followed for such plans, in accordance with EU legislation on environmental impact assessments, which is implemented in the Netherlands by the Environmental Management Act and the Environmental Impact Assessment Decree. From 1 January 2024 these will be replaced by the Environment and Planning Act. A SEA procedure is always legally linked to a 'parent procedure', which in this case is the approval and adoption procedure of the National Spatial Strategy. This means that a SEA must be drawn up as a basis for the draft National Spatial Strategy when it is made available for inspection.

In parallel an 'appropriate assessment' must also be performed for the National Spatial Strategy in compliance with the Nature Conservation Act. It examines any potential adverse effects of the proposed policy on the achievement of conservation objectives in the Natura 2000 areas.

SEA procedure

The SEA procedure encompasses a number of mandatory steps. Where possible these will run parallel to the procedural steps being taken for the National Spatial Strategy. The steps are shown in figure 2.2 and explained below the figure.

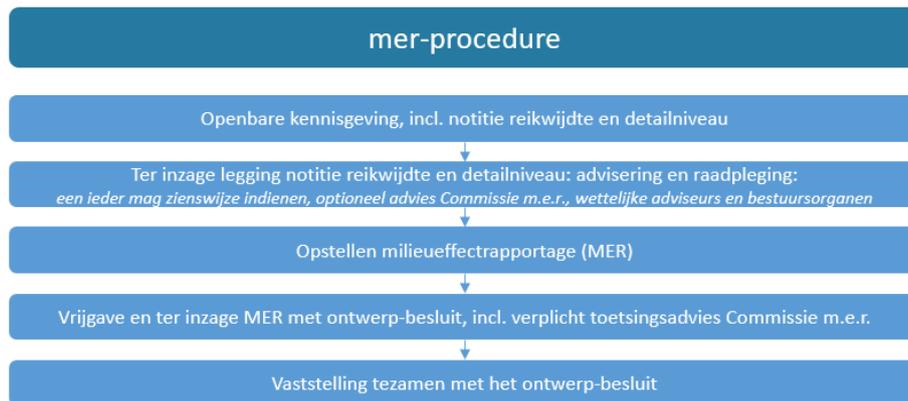


Figure 2.2: The SEA procedure for the National Spatial Strategy

Notification of public consultation procedure, including the Memorandum on Scope and Details (June 2023)

The first formal step is notification of a consultation procedure. This notification informs the public that the Minister for Housing and Spatial Planning intends – in conjunction with the other ministers concerned – to prepare and adopt the National Spatial Strategy. The Memorandum on Scope and Details provides more information and context in this respect.

Memorandum on Scope and Details available for inspection, advice and consultation (June - July 2023)

Following publication of the notification and this Memorandum on Scope and Details, members of the public, civil society organisations, businesses and institutions will have the opportunity to submit their views on the content of the Memorandum on Scope and Details. The legislative advisers, relevant administrative bodies and the Netherlands Commission for Environmental Assessment can also give an advisory opinion on what should be examined in the SEA.

Because subnational authorities play a key role in implementing the policy, they will also be consulted. Since the plans may have environmental implications for neighbouring countries, i.e. Germany and Belgium and – due to choices pertaining to the North Sea – the United Kingdom, Denmark and Norway, the relevant authorities in these countries will also be consulted. Furthermore, central government's legislative advisers will also be consulted on the scope and level of detail of the SEA. The relevant ministers are the Minister of Infrastructure and Water Management, the Minister of Education, Culture and Science (the Cultural Heritage Agency) and the Minister of Agriculture, Nature and Food Quality. The Netherlands Commission for Environmental Assessment will also be asked to give an

advisory opinion on how the scope and level of details in drafting the SEA. This advice will be published on the Commission's website.

Following assessment by the competent authority, the input obtained during the consultation on scope and details will be taken into account in implementing the SEA. The SEA will explain how the advisory opinions and views submitted have been dealt with.

Drafting the SEA (June - Q1 2024)

The SEA will be drawn up on the basis of this Memorandum on Scope and Details, the initial drafts of the National Spatial Strategy and the advisory opinions and views submitted.

Release and availability for inspection of the SEA together with the draft National Spatial Strategy (Q2 2024)

The SEA will be made available for inspection at the same time as the draft National Spatial Strategy. Anyone can submit their views on the two documents in accordance with the relevant procedure. The neighbouring countries (Belgium, Germany, the United Kingdom, Denmark and Norway) will be consulted about the SEA and the draft National Spatial Strategy. The SEA will also be reviewed by the Netherlands Commission for Environmental Assessment. The SEA and the draft Strategy will be presented to the House of Representatives at the same time as the above.

Adoption of the National Spatial Strategy (Q4 2024)

As the minister responsible for national spatial planning policy, the Minister for Housing and Spatial Planning will formally adopt the National Spatial Strategy, in consultation with the other ministers concerned and specifying how the SEA and the views and advisory opinions have been taken into account.

2.3 The approach: use and build on what we already have, focus on new choices

SEA for the NOVI and the 2020 and 2022 NOVI monitoring reports provide solid basis

The National Strategy on Spatial Planning and the Environment (NOVI) was adopted in 2020. The accompanying SEA dates from 2019 and has three parts:

- Main report
- Background document - Consideration of alternative policy options
- Background document - State of the physical environment (assessment of current and reference situation).

The Netherlands Environmental Assessment Agency (PBL) also monitors the physical environment in the Netherlands and reports on this annually through the NOVI Monitor. The Monitor shows to what extent the environmental targets set by the government in the NOVI are within reach. Following a baseline measurement in 2020, the results of the first follow-up assessment were published in the Monitor in 2022. As a result, we now have up-to-date information on the state of the physical environment at present and in the reference situation (the situation in 2030 based on current policy, also looking ahead to 2050). Drawing on this information, the SEA for the National Spatial Strategy will provide a brief summary of the reference

situation described in the NOVI SEA and, where necessary, incorporate the latest trends. In concrete terms, this means that the reference situation from the NOVI SEA will be reassessed on the basis of the 2022 Monitor and using the Wheel of the Environment. The outcome will be incorporated into the SEA for the National Spatial Strategy, in the 'Environment snapshot' section.

Methodology from the NOVI SEA, with some adjustments

Ample time was taken to work out the approach for the SEA accompanying the NOVI. With a view to consistency, PBL's Monitor and the various environmental assessment procedures for NOVI-based programmes also use this methodology, which includes the Wheel of the Environment, a focus on selected types of area and different approaches to different types of policy choices (see chapter 4 for further details).

As a tool to visualise the impact of policy changes, the SEA will look at four variants. These are conceivable future scenarios for the Netherlands in 2100, combining spatial visualisations of logically coherent policy options. These variants are described in more detail in chapter 3. The SEA will consider the environmental effects of choices made in these variants, and compare them with the preferred variant's scores, clarifying why certain choices have not been made or taken into account. The SEA will also describe what implications this will have as regards choices in the here and now and/or in 2030 and 2050. It will additionally focus on new choices, and on the impact of stronger coordination by central government than in the past (see below).

Focus on new choices

The SEA will focus on the effects of new policies and policy changes in relation to the NOVI. Brief attention will be paid to unchanged policy and any recommendations to modify and/or tighten up that policy will be based primarily on data from the 2022 Monitor. In other words, the SEA will look at the effects of the new, foundational choices in the short term and the directional statements in the long term, with a stronger focus on the lead-up to 2050 and 2100.

Final assessment of the 'preferred variant' and recommendations

Ultimately, the National Spatial Strategy will contain a coherent package of spatial planning choices and policy frameworks that will guide the spatial development of the Netherlands. The SEA will examine the effects of the 'preferred variant' in relation to all relevant aspects of the physical environment, identify opportunities and risks, and present various recommendations.

Figure 2.3 shows the process and the connection between the SEA and the appropriate assessment.

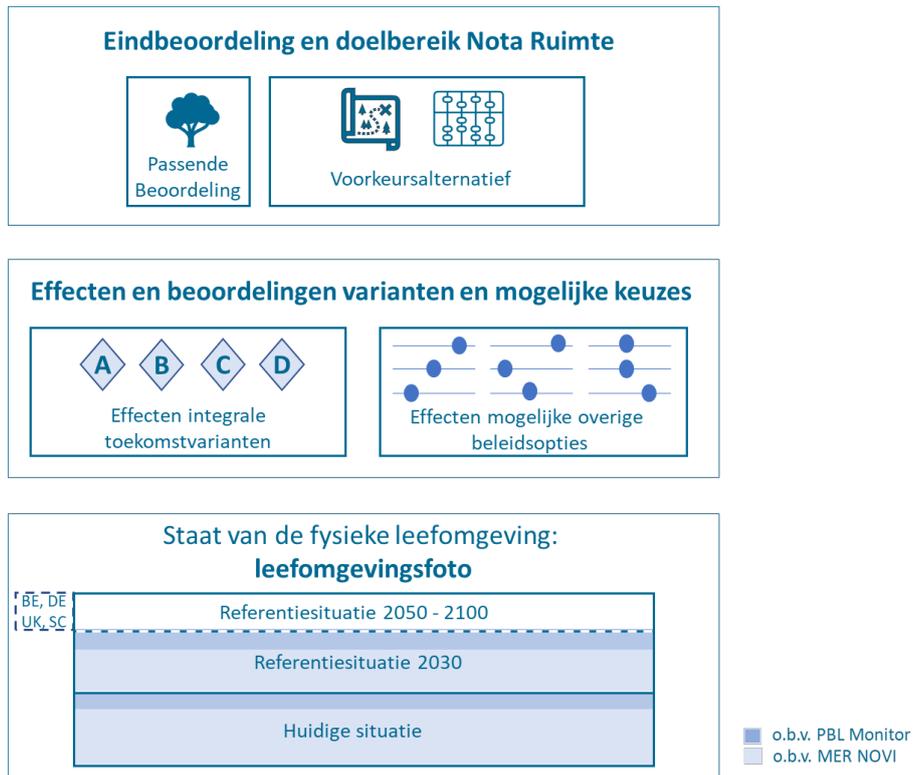


Figure 2.3: Process for drafting the SEA and its components

Consistency with other strategic environmental assessments

Where possible, the SEA will use the findings of the environmental assessments carried out for the various programmes launched under the NOVI, such as for the Rural Areas (NPLG), Water (NWP) and Environment (NMP) programmes. Although these differ in scope and abstraction level from the SEA for the National Spatial Strategy, they still contain relevant information about the state of the physical environment and the effects of policy choices for that theme.

3 Approach

3.1 Keystones for the approach

There are four keystones in the National Spatial Strategy process.



Figure 4.1: Principles of EIA in the National Spatial Strategy

3.2 Scope of the National Spatial Strategy

The scope and content of the National Spatial Strategy are summarised in the table below.

Analysis and challenges	Vision	Land use implications	Policy implications	Long-term impact/ implementation
<ul style="list-style-type: none"> • Why a National Spatial Strategy? • Major challenges • Context 	<ul style="list-style-type: none"> • Vision for 2030, 2050 and 2100 in text and maps • Integration in three perspectives 	<ul style="list-style-type: none"> • From vision to national spatial structures • Plan per region/province 	<ul style="list-style-type: none"> • Description of current policy • New policy directions 	<ul style="list-style-type: none"> • Cooperation • Incorporation into national programmes • Instruments • Monitoring, evaluation and reporting

3.3 Assessment and comparison of comprehensive future variants

The SEA will show what the effects will be of the choices we make in the National Spatial Strategy. The differences between the effects of a preferred variant and those of four possible future variants will be depicted visually, giving grounds for the policy choices and insight into the relevant effects. In this way the SEA will provide clarity on the spatial impact and scope of the choices in the National Spatial Strategy. This is important information for decision-making.

Why different variants?

The variants each represent a conceivable future for our country. They are not scenarios in the sense that they are based on highly differing trends or sector-wide challenges, but give a general picture of the spatial implications of different policy choices to the same sector-specific issues, assuming population growth and economic growth stay within a given range. The variants also give an indication of how robust the policy choices are. They explicitly do not show the effects of policy choices that have been committed to, but aim only to provide insight into the effects – both positive and negative – of possible policy choices. To enable a sound comparison in the SEA, the variants have been made sufficiently distinctive from one another. Because the National Spatial Strategy looks ahead to 2050 and 2100, the choices made will have significant implications in the longer term.

Four draft variants

We will assess four variants. The findings will be used to draw up a preferred variant from which policy choices and directions can be derived. The four draft variants will be adapted during the development process, based on insights from, for example, foresight studies and analysis by experts from various ministries. Any views gathered when this Memorandum on Scope and Details was available for inspection will also be taken into account.

Variant A

Continue on the present path

This variant assumes trends and policy will stay on their current trajectories in the future. Rivers will remain in open connection with the sea, and the coastline will be protected by hard or soft landscape elements, such as dams, storm barriers, sand nourishment or wetlands. In this variant, our country will continue pursuing a broad economic strategy and international integration. We will also continue with the current urbanisation strategy, i.e. developing the urban network by strengthening the different regions in the Randstad conurbation and the ring of urban areas around it. Large-scale housing development, in a combination of suburban and inner-city projects, will be concentrated in Zwolle, the Arnhem-Nijmegen-Food Valley region, Eindhoven, Den Bosch and the Breda-Tilburg region. These regions will accommodate most of the population growth. Homes outside the Randstad conurbation will be sustainably connected to the economic centres by means of fast rail links. We will protect and reinforce nature with transitional areas and through blue-green networks. Agriculture will remain internationally competitive, based on a transition to circular agriculture.

Variant B

Specialise and concentrate

In this variant, the focus is on enabling a strong concentration of residential and work functions in the fastest growing urban regions and using existing agglomeration dynamic in the Amsterdam metropolitan region, the southern part of the Randstad conurbation and the Eindhoven region. This strong concentration and urban densification will go hand in hand with a large-scale transport and mobility transition in these regions. Innovative forms of densification in combination with blue-green networks in the city will safeguard population health and liveability. In an international context, the Netherlands will focus on specialisation and on its economically strongest sectors. International rail links will connect the main economic centres with major European cities. In the future, the Netherlands will be expanded

seawards through the construction of artificial islands or polders to protect the economic centres from the fallout of sea-level rise. This new land can be used for urbanisation and expansion of the ports of Rotterdam and Amsterdam. Currently fossil fuel hubs, these sea ports will transform into major circular logistics hubs. Concentrating urbanisation in a few areas in the Netherlands will leave space in the rest of the country for agriculture, recreation and a robust network of natural areas.

Variant C

Diversify and regionalise

This variant involves reinforcing the distinctive regional strengths in the Netherlands. Urban development will be spread across the Netherlands, with a focus on growth in the north, east and south, which will be underpinned by the regions' economic development based on their unique qualities and strengths. There will be high-density development within existing cities, and sustainable transport and mobility in suburban areas. Agricultural transitions will be managed regionally, so as to take account of the characteristics of the local water and soil system. Landscape and nature development will be carried out parallel to this, leading to a dense blue-green network. All forms of land use will be designed to be nature inclusive. We will protect the Netherlands against sea-level rise by closing off the rivers from the sea and through a combination of hard and soft landscape elements, such as dams, storm barriers, sand nourishment or wetlands.

Variant D

Going with the flow

In this variant we will adapt to the rising sea level and create maximum space for our rivers. Water- or salt-tolerant land use, land raising and alternative forms of cultivation will make the Netherlands less vulnerable to the fallout of sea-level rise and peak discharge in rivers. We will also restrict development in flood-prone areas. We will protect what we have now, but new developments will mainly take place in the higher parts of the Netherlands. We will also make use of the opportunities offered by cross-border urban networks. Urbanisation will take place through densification of existing cities and, more widely, through nature-inclusive regional development integrated into the landscape. Urban development in more elevated parts of the country will open up opportunities for new economic sectors, new forms of agriculture with different crops and large-scale nature and landscape development: new nature conservation areas and landscapes adapted to the climate of the future.

3.4 Arriving at a preferred variant

The preferred variant incorporates the choices and directions that the government wants to take, which will be set out in the National Spatial Strategy. The choices and their elaboration in the national programmes, in provincial spatial planning proposals and in the associated funding agreements with the provinces will provide important input for this. Certainly when it comes to the directional statements for the longer term, the preferred variant is the result of due consideration of the implications of the variants mentioned in section 3.3. The preferred variant will also be assessed in the SEA. Comparing it with the combined choices from the other variants will provide good insight into the logic behind the choices made.

4 Themes and assessment method

4.1 Assessment of effects using the Wheel of the Environment

The Wheel of the Environment was introduced for the NOVI as an integrated tool to visualise the effects on all themes relating to the physical environment. Figure 4.1 shows how the cohesive package of policy objectives set out in the NOVI affects each of the themes. For each theme, the arrows indicate opportunities for improvement and their likelihood, or conversely the risk of deterioration.

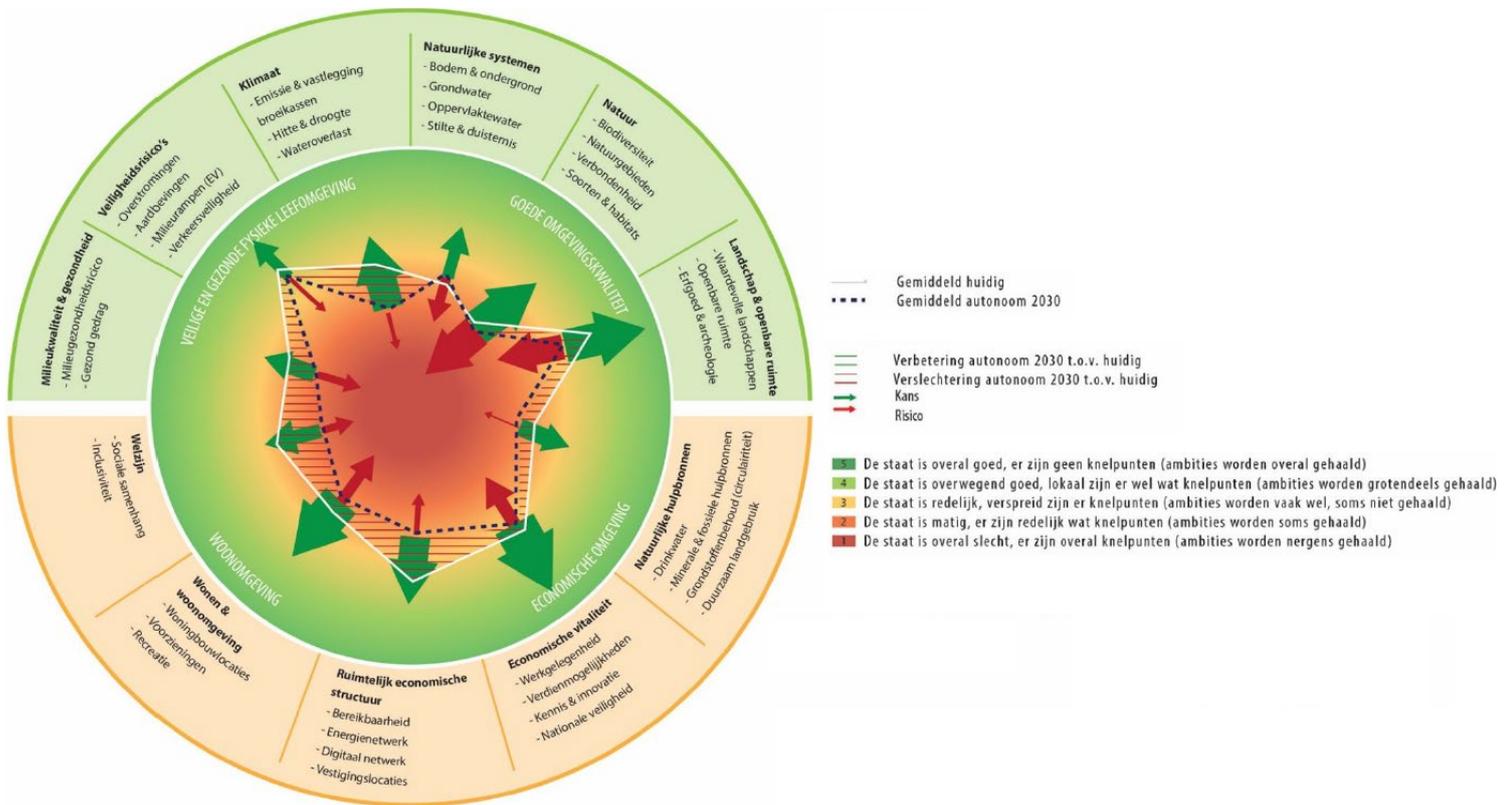


Figure 4.1: Wheel of the Environment assessing the NOVI (RHDHV, 2019)

In the SEA for the National Spatial Strategy, we will use this wheel as a way to visualise effects. This means that the snapshot of the environment, as described in section 2.3, will address all aspects of the wheel.

This will ultimately lead to a tighter assessment than that performed for the NOVI, and therefore also identify possible points to keep in mind with regard to future policy changes.

Themes of the Wheel of the Environment

The Wheel of the Environment was developed in alignment with the Environment and Planning Act. The objectives of the Act are (1) to protect the physical environment and (2) to provide for the fulfilment of societal needs. The wheel breaks this down into four domains:

1. Safe and healthy physical environment
2. Good environmental quality
3. Living environment
4. Economic environment

These domains will also form the backbone of the SEA for the National Spatial Strategy. The SEA will focus primarily on themes in the upper half of the wheel ('safe and healthy physical environment' and 'good environmental quality'), as the considerations in the context of the National Spatial Strategy largely also focus on the physical environment. Although the choices affect themes in the lower half of the wheel, the environmental information needed to make a well-informed decision on the content of the National Spatial Strategy is mainly found in the upper half of the wheel.

Table 4.1: Domains, themes and indicators in the Wheel of the Environment

Domain	Theme	Indicator	Details for determining effects
Safe and healthy physical environment	Environmental quality and health	Environmental health risks	Change in environmental health risk (e.g. due to air quality, safety risks and noise pollution)
		Healthy behaviour	Change in the extent of human powered travel and a healthy lifestyle
	Safety risks	Flooding	Change in the probability and impact of flooding from rivers and the sea (and therefore the risk of flooding)
		Earthquakes	Change in the probability and impact of earthquakes in the Netherlands
		Environmental disasters	Change in the probability and impact of environmental disasters due to risks associated with economic activities
		Traffic safety	Change in the number of road casualties, the behaviour of road users and transport and mobility developments
	Climate	Emissions and capture of greenhouse gases	Change in emissions and capture of greenhouse gases
		Heatwaves and droughts	Change in intensity and duration of heatwaves and droughts
		Flooding	Change in the probability and impact of flooding

Domain	Theme	Indicator	Details for determining effects
Good environmental quality	Natural systems	Soil and subsurface	Change in quality and natural system of soil and subsurface
		Groundwater	Change in groundwater quality and natural system
		Surface water	Change in surface water quality and natural system water
	Nature	Silence and darkness	Change in total size of silent, quiet and dark areas
		Biodiversity	Change in biodiversity
		Total size of nature conservation areas	Change in total size of nature conservation areas
		Connected nature conservation areas	Spatially linked up nature conservation areas
		Species and habitats	Appropriate environmental conditions for the sustainable conservation of species and habitats
	Landscape and public space	Valuable landscapes	Change in total size and quality of valuable landscapes
		Public space	Change in quality of open space
		Heritage and archaeology	Change in preservation and development of archaeological sites, built heritage (monuments and historic buildings/city and villagescapes), cultural landscape and world heritage

Domain	Theme	Indicator	Details for determining effects
Economic environment	Natural resources	Drinking water	Change in volume and quality of drinking water supply
		Mineral and fossil resources	Change in volume and quality of mineral and fossil resources
		Circularity	Change in prospects for closed raw material cycles
		Sustainable land use	Change in the total area of sustainably managed land in rural areas (including maintaining good soil health)
	Economic capital	Employment	Change in the number of jobs in sectors
		Earning capacity	Change in the earning capacity of sectors
		Knowledge and innovation	Change in the degree of knowledge development and innovation
		National security	Change in the extent to which national security is guaranteed
	Spatial economic structure	Accessibility	Change in the number of jobs that can be reached within an hour's commute
		Energy network	Change in the extent to which energy supply and demand are linked by the presence of energy infrastructure
		Digital network	Change in digital connectivity due to the presence of digital infrastructure
Business locations		Change in area and quality of business locations for specific sectors	
Domain	Theme	Indicator	Details for determining effects
Living environment	Housing and living environment	Housing development sites	Change in area and quality of housing development sites
		Facilities	Change in presence, quality and proximity of facilities
		Recreation	Change in presence, quality and proximity of recreational opportunities
	Wellbeing	Social cohesion	Change in spatial conditions for and degree of social cohesion
		Inclusion	Change in the extent to which everyone has equal opportunities to participate in society

For each of the four domains, the SEA examines the possible effects of policy variants on all indicators. It zooms in on major effects, opportunities and risks. Themes and indicators for which effects, opportunities or risks are not significant are not explicitly discussed.

Impact assessment based on expert judgment

The impact assessment is based on expert judgment. Some indicators are interrelated, or overlap and can be considered from multiple perspectives. In considering and describing effects, this is dealt with pragmatically. As a general rule, impacts are only examined for a single specific location, including possible relationships and indirect effects.

The expert judgments are validated in four ways:

- initial review by Antea Group – in cooperation with the Ministry of the Interior and Kingdom Relations (BZK) where relevant;
- validation and tightening up by BZK's core team for the National Spatial Strategy;
- validation and tightening up by other ministries;
- validation and tightening up by a support team whose members represent policy analysis agencies (*planbureau's*), the Association of

Provincial Authorities (IPO), the Association of Netherlands Municipalities (VNG), the Dutch Water Authorities (UWV) and other knowledge institutions where appropriate.

Dealing with indicators for which data is not or is insufficiently available

PBL indicated in the Monitor that for certain indicators insufficient data is available or, for example, the measurement method has changed in the interim. This means that there is little or no information available on the current status of these indicators. Where relevant (if no statements on impact can be made in the SEA), PBL will be consulted to decide whether and, if so, how an indicator from the Wheel of the Environment should be adjusted or updated. At this time missing data is not expected to hinder the impact assessment.

4.2 Insight into the quality of the living environment in the current situation and reference situation

The SEA will determine the effects based on the current situation and reference situation, the latter being the situation in 2030, 2050 and 2100, were current policy to be continued. As already indicated in chapter 2, this SEA for the National Spatial Strategy will be strongly based on the SEA for the NOVI and the NOVI Monitors for 2020 and 2022. Where relevant (for example, due to the availability of more recent data and/or trends), the assessment of the current situation and reference situation will be tightened. This will produce a more accurate description of the current situation and reference situation visualised in the Wheel of the Environment. The SEA will include a short explanation of any tightening of the scores for each theme. Where possible, the SEA will also look ahead at the trends and impacts in the reference situation post-2050.

The five-point scale from the SEA for the NOVI will be used to rate the current state of the environment and the reference situation. See Table 4.2.

Table 4.2: Scale for assessing the state of the environment (for each theme on the wheel) in the current situation and the reference situation

Score	Explanation
5	In good state everywhere -- no problems (targets/goals being met everywhere)
4	In predominantly good state -- some local problems (targets/goals largely being met)
3	In reasonable state -- sporadic problems (targets/goals often being met, but not always)
2	In passable state -- a fair number of problems (targets/goals sometimes being met)
1	In poor state across the board -- problems everywhere (targets/goals not being met anywhere).

4.3 Determining the possible effects of the variants

Like the environment snapshot of the current and reference situations, the possible effects of the variants will be assessed on all themes relating to the physical environment (see previous section). Each domain and theme will be described and assessed to determine how the scenario scores (positive or negative) in relation to the reference situation, and whether certain risks and/or opportunities will increase or decrease.

The variants are described in general terms, so the description and assessment of possible effects obviously do not claim to be precise. Rather, the impact assessment should be seen more as a general assessment of the 'likelihood of positive or negative effects'.

A more traditional approach is taken to this assessment, using pluses and minuses as follows:

++	Likelihood of a strong positive effect compared to the reference situation
+	Likelihood of a positive effect compared to the reference situation
0/+	Likelihood of a small positive effect compared to the reference situation
0	A neutral effect compared to the reference situation
0/-	Likelihood of a small negative effect compared to the reference situation
-	Likelihood of a negative effect compared to the reference situation
--	Likelihood of a strong negative effect compared to the reference situation

Dealing with regional differences and different areas in impact assessment

It is difficult to perform an impact assessment for the whole of the Netherlands without ignoring regional differences and the characteristics of specific areas. Although the SEA will be carried out at national level, it is important to provide insight into how policy can have different regional or area-specific effects. With this in mind, following on from the SEA for the NOVI, attention will also be paid to the effects in different types of area: urban regions, rural areas, port and industrial areas, and the North Sea. Two types of area have been added to these four types: Natura 2000 areas

and other countries. Specific attention will also be paid to the effects in the NOVEX areas.

The impact assessment will focus more specifically on these areas when examining the future scenarios. Where necessary, a regional assessment will be provided for specific parts of the country.

4.4 Comprehensive assessment of the new policy directions and the 'preferred variant'

The draft National Spatial Strategy will contain a coherent package of national foundational choices and directional statements. The SEA will determine and assess the effects of the package as a whole ('the preferred variant') and where possible, the potential effects of each policy choice. This will be done in the same way as for the current situation and reference situation.

The SEA will distinguish different categories of policy choices which will each be assessed in its own way: choices involving a continuation of existing policy, concrete decisions that enable implementation, decisions of principle that offer guidance for implementation, and procedural decisions. See Table 4.3.

Table 4.3: Policy choice categories for assessment of the preferred variant

Category	Explanation	Method
1. Continuation of existing policy	Policy choice that is a perpetuation and continuation of existing policy.	No impact assessment; the change in relation to the reference situation is by definition equal to '0' (since the reference situation is continuation of policy).
2. Concrete decision	New policy choice that is so concrete that it is clear how it will be implemented.	Impact assessment; based on the degree to which choices can already lead to changes in the desired indicator scores from the Wheel of the Environment (applying the five-point scale).
3. Decision of principle	New policy choice that describes a very general framework, which will need to be fleshed out in subsequent decisions before it is clear how it can be implemented. There is a framework for these subsequent decisions.	Impact assessment; for example, consideration of opportunities and risks that are relevant for subsequent decisions, given the impact that future choices may have on achieving the desired indicator scores from the Wheel of the Environment.
4. Procedural decision	New policy choice that states the intention to move ahead with a process that can lead to new policy. There is no framework in place for subsequent decisions.	No impact assessment; effects cannot be estimated because the nature of any subsequent decisions is still unclear (e.g. 'smart localisation').

4.5 Assessment of 'greater national coordination'

Through the National Spatial Strategy central government is taking more control of spatial development in the Netherlands. The assessment of the variants, choices and directions will also give an indication, using a simple three-point scale, of the extent to which this coordination may strengthen or weaken effects, and explain why this might be so. The actual effects will of course depend strongly on the way central government fulfils its coordinating role and how this relates to management at other tiers of government and with autonomous developments.

4.6 Approach to appropriate assessment

The National Spatial Strategy will include new policy choices which could, either individually or in conjunction, have significant impact on Natura 2000 sites. An appropriate assessment is therefore required under the Nature Conversation Act. The aim of appropriate assessment is to:

- identify risks of significant negative effects on the natural characteristics of Natura 2000 sites as a result of new policy;
- gain insight into mitigation measures and/or policy adjustments that may be required in order to avoid such effects;
- determine the likelihood of positive effects on Natura 2000 areas.

A similar level of detail will be used in the appropriate assessment as in the SEA. Given the level of abstraction of the policy statements, the assessment will be broad. The principal aim is to assess the risks of the 'preferred variant', i.e. the choices and directions to be included in the National Spatial Strategy. The possible effects on Natura 2000 sites will also be reflected in the foresight studies and future scenarios.

4.7 Dealing with transboundary effects

The challenges and problems facing the Netherlands are global trends, and any action taken here will most likely affect our neighbours (Belgium and Germany) too. The SEA will briefly discuss the developments in these countries and possible transboundary risks and opportunities associated with the foresight studies/future scenarios and the preferred variant.