National Water Plan – a Summary

The National Water Plan: The Netherlands, a safe and liveable delta, now and in the future.

In the last decade, the Fourth National Policy Document on Water Management (*Vierde Nota Waterhuishouding*), the Water Management in the 21st Century Advisory Committee (*Commissie Waterbeheer 21e eeuw*) and the National Administrative Agreement on Water (*Nationaal Bestuursakkoord Water*) represented an important impulse for water management. With this first National Water Plan, which is also a framework vision based on the new Water Act (*Waterwet*) and the Spatial Planning Act (*Wet Ruimtelijk Ordening*) and drafted for the 2009-2015 planning period, we are entering a new phase. Because we want future generations to be able to enjoy the Netherlands as a safe and affluent land of water, we have to find answers now to developments in climate, demography and economy, and invest in sustainable water management. Effective flood defences are basic preconditions for prosperity and well-being, prevention of floods and drought wherever possible, and good water quality are achievements that the Netherlands has, in large measure, water to thank for, in addition to its favourable location and an excellent freshwater supply. The Netherlands, an attractive country with an abundance of water and high levels of safety, contributes positively towards the quality of the living environment and the conservation of biodiversity. Water is wonderful and the Dutch love it. The aim is crystal clear: the Netherlands, a safe and liveable delta, now and in the future.

Sustainable and climate-resistant water management

In the 2007 Outlook on Water (*Watervisie*), the Cabinet set out the aim of stepping up its ambitions and pursuing sustainable and climate-resistant water management. To achieve this aim, the Cabinet established a second Delta Committee (*Deltacommissie*) to advise on water policy for the next century and beyond. In 2008, the Delta Committee proposed increasing flood protection and securing freshwater supplies in the long term, an advice it embedded in twelve recommendations. The Cabinet endorsed this cohesive vision and decided to use it as a starting point for further elaboration. The first policy-based detailing of the vision now forms part of this National Water Plan. To guarantee the continuity and cohesion of this approach in the long term as well, the Cabinet will be introducing a Delta Bill (*Deltawet*) in 2009, addressing the legal basis for the Delta programme (*Deltaprogramma*), the tasks and powers of the Delta manager, and the way in which a solid financial base can be laid. The central government's ambition is to invest in flood protection and defence and in freshwater supply in the next decades. Expenditure is not included in the draft National Water Plan but will be detailed in 2009 in the context of the Delta Act and the Delta Programme.

Measures in full swing

Alongside all these plans for ensuring the future safety and liveability of the Netherlands, the implementation of measures are already in full swing. The Flood Protection Programme (*Hoogwaterbeschermingsprogramma*) and programmes for river widening, Space for the River

(*Ruimte voor de Rivier*), and the Meuse projects (*Maaswerken*) are making good progress. The National Administrative Agreement on Water, updated in 2008, is being used to order the water systems by 2015, especially in terms of flooding and water shortages. In the planning period, river basin management plans are being carried out to ensure improvements to the necessary water quality of the Ems, Meuse, Rhine and Schelde Rivers.

The funds the central government is freeing up for the planning period suffice to carry out the planned measures for which the central government bears responsibility.

Working together to implement water policy

Co-operation between government bodies is being intensified. Examples include the result-driven work on the Water Framework Directive (*Kaderrichtlijn Water*) and Space for the River. It is being considered whether collaboration between the river basin authorities can be made more effective. The Delta manager will be given a key task when it comes to water safety and freshwater supply. An area-based approach is to become the standard for implementing measures, which means not only deciding what is needed from the perspective of the water system but more especially, working with all stakeholders in applying a development-geared approach and seizing opportunities. Innovating and generating new knowledge are key to making the most of these opportunities and bringing about renewal. The central government wants everyone to co-operate proactively. For many, water is still a given. What we need is to raise awareness of the opportunities afforded, as well as the risks entailed.

Going with the flow, offering resistance, seizing opportunities

The basic principle of sustainable water management is to ‘go with the flow of natural processes where possible, offer resistance where necessary and seize opportunities to foster prosperity and well-being’. Making room for water, going with the flow where possible and utilising natural processes such as is now the case with Space for the River are essential for sustainable water management. The central government considers it vital that water tasks and measures are optimally embedded into other types of tasks and measures.

Offering resistance fits in well with the Dutch tradition of building dykes and dams to defend the land against water and managing water levels in polders, tasks that are essential if we are continue to live and work in the Netherlands. Grasping the opportunities water offers is an attitude the Cabinet values highly. Water plays a significant part in enhancing the spatial quality of rural and urban areas – water is what makes the Netherlands beautiful. All manner of activities can be combined with water management, such as leisure activities, nature and landscape, agriculture, renewable energy production and housing. Taking an area-based approach is often a way of improving water management whilst reinforcing the economy and the living environment at the same time. And this should be done at a social cost that is as low as possible.

Enhancing water and space

Taking short-term and long-term water management requirements into consideration during spatial development is essential for a sustainable and climate-resistant water system. Conversely, water managers need to be aware that there is far more to be achieved in all areas than just water-related targets. They must also anticipate spatial and economic developments.

Water is to play a more influential role than hitherto in decisions regarding major tasks in the areas of urbanisation, commerce, industry and agriculture, nature, landscape and leisure activities if a sustainable and climate-resistant water system is to be accomplished. The extent to which water is a defining factor in spatial developments depends on the nature, scope and urgency of the water task in relation to other tasks, existing functions and soil quality, as well as other area-specific features. The key is as always to strike a balance between different interests.

The Land Use Planning Memorandum (*Nota Ruimte*) regulates the spatial consequences of the current water policy. This is set to change. A General Administrative Order on Space (*AMvB Ruimte*) will be introduced in 2009 for areas that are part of the National Spatial Structure, i.e. the coast, the large rivers and the IJsselmeer lake area. The National Water Plan, which is also a framework vision based on the Spatial Planning Act, replaces certain policy sections of the Land Use Planning Memorandum pertaining to the IJsselmeer lake, the North Sea and the rivers. The protection of vital functions and vulnerable objects is a subject of national importance, though it is not limited to areas in the National Spatial Structure. The central government will be drawing up a separate General Administrative Order for this on the basis of a flood risk pattern, in order to protect telecommunications, ICT and energy networks as well as evacuation routes in the event of flooding.

The central government is expanding and enhancing the operation of the water test and will evaluate its effect in 2011. It is asking provinces and local councils to involve water managers at as early a stage as possible when drafting framework visions by requesting their advice on and asking them to write a section on water. The central government will then look into effective measures or means for keeping space for water available in the long term, supplementary to the tool of spatial reservation.

Working toward a safe delta

Climate change increases the threat of water. Furthermore, the values to be protected have increased significantly in the last decades. The Cabinet is opting for a sustainable water safety policy by focusing on ‘multi-layer safety’. This is a three-tier or ‘layer’ approach to our protection, the first of which is prevention, i.e. preventing flooding. This is and remains the cornerstone of water safety policy, even though it can never be ruled out completely. The second and third layers are therefore aimed at limiting the effects of flooding. The aim of the second layer is to create a sustainable spatial layout of the Netherlands and the third seeks to improve the organisational preparations for a potential flood (disaster mitigation).

New standards are to be established on the basis of flooding risk, which will be tested every six years against water levels and wave heights that are expected twelve years later. The level of the standards will be decided in 2011, based on a cost-benefit analysis and an analysis of the potential number of casualties. The consequences of the safety standards increased by a factor 10 as proposed by the Delta Committee will also be shown.

Research is to be conducted into robust and wide delta dykes. With a view to sustainable spatial development, the provinces, water boards and the central government are jointly charting flooding risks which will be mapped out in zones by 2012.

The central government is encouraging water managers and safety regions to draft co-operation agreements, in addition to their existing statutory obligations, establishing the role they are to fulfil in disaster mitigation during an actual or impending flood. The results of the work done by the Flood Management Taskforce (*Taskforce Management Overstromingen*) and the outcome of the 'Waterproof' (*Waterproef*) operation will be embedded in policy.

This multi-layered approach to safety requires area-based custom work. In association with regional parties, the Cabinet will be expounding this approach in area pilot schemes. The European Directive on Flood Risks (*Europese Richtlijn Overstromingsrisico's*) will be introduced into Dutch legislation during the planning period. Risk maps and flood risk management plans are to be jointly developed with neighbouring countries.

In 2009, the central government will be taking the initiative to inventory and assess potential bottlenecks in the areas outside the dykes. Together with administrative partners, it will consider whether policy amendment is needed. This re-evaluation will take place in the light of the new standards and will create a link with basic safety.

Sustainable freshwater supply

Existing freshwater supply agreements will remain in force until 2015. Policy is, under normal circumstances, geared towards meeting users' needs wherever possible and, as yet, no big problems are expected until 2015, again under normal circumstances. In periods of water shortages (in dry summers), water will be distributed on the basis of the list of priorities and the damage to be contained.

In this planning period, the central government will be making long-term decisions on freshwater supplies and salinisation control, including any infrastructure measures this may require. In the coming planning period, possible solution strategies are to be worked out with the regions. The key aspects of this new strategy are greater levels of regional self-sufficiency and optimisation of the freshwater distribution in the main and regional water systems. For this too, the central government, the regions and the users will be hammering out solutions in the coming planning period. Solutions and areas will

be considered as a cohesive whole and the (spatial) consequences for regional systems and functions (drinking water, agriculture, nature and shipping) made transparent.

Cleaner water and a natural design

The Cabinet is holding on to a combination of tackling pollution at source and improving the design of the water system, reflected in the river basin management plans for the Ems, Meuse, Rhine and Schelde rivers for the 2009-2015 period. Alongside continuation of the (international) approach to sources and the treatment of wastewater, a new key element is improvement of the design. During this period, for example, some 2,400 km of eco-friendly banks and over 630 fish ladders will be made. The fight against pollution continues – 290 sewage overflow points are to be tackled and improvements made to more than 50 wastewater treatment plants. Despite all these activities, the aims of the Water Framework Directive have not been achieved yet. The Cabinet has set aside 75 million Euros to promote innovations intended to further improve water quality.

Water policy for coast, rivers, IJsselmeer lake, south-west Delta, North Sea and urban areas

The coast is growing. The Cabinet is opting for sand replenishment as a way of enabling the coastal foundation zone to grow concurrently with the rise in sea levels. Where possible, this is to take place by distributing and transferring sand naturally along the coast. In addition, the Cabinet is opting for a cohesive approach to area development that allows for a balanced development of nature, economy and accessibility in the existing coastal areas. The Delta Committee has suggested extending the coast line to provide more space for functions in the coastal area. In the planning period, the central government will be exploring the feasibility of this proposal.

The rivers are expanding. The key planning decision (*PKB*) Space for the River and the Meuse Projects are progressing steadily, which means that by 2015, the Rhine will be able to handle a peak discharge level of 16,000 m^3/s and the Meuse a discharge level of 3,800 m^3/s. Steady progress is also being made implementing the Rhine and Meuse Action Plans on Flood Defence (*Actieprogramma's Hoogwater Rijn en Hoogwater Maas*). Future agreements will be made in the perspective of the flood risk directive.

Where possible and cost-effective, measures can already be taken for discharging 18,000 m^3/s from the branches of the Rhine and 4,600 m^3/s from the Meuse, for example, by establishing a link between the water task and spatial developments. To anticipate the safety task after 2015, lands should be set aside and where necessary, purchased, outside and possibly also inside of the dykes.

The central government is working with all authorities involved on the formulation of a long-range task for areas outside of the dykes along the rivers, taking account of safety, nature, water and spatial

quality and (regional) spatial developments in favour of a balanced application, management and use of the riverbed.

As for the Rijnmond and the Drechtsteden regions, the Cabinet recognises the significance of guaranteeing the protection against flooding of the rivers and the sea in the long term as well. At the same time, the negative effects of salinisation in this area must be prevented. Following on from the recommendation of the Delta Committee, the central government and other authorities will be conducting research into a 'closable-open' Rijnmond.

The level of IJsselmeer lake is to be raised. The Cabinet is opting to reinforce the strategic function of the IJsselmeer lake area to supply freshwater. By making small adjustments to the water level management regime, space that the system currently has anyway can be used in the short term. In the long term, use will be made of the additional water that is created by raising the water level of the lake. Research is being done to see what is needed to supply freshwater to the west of the Netherlands as well. In connection with this, the Cabinet has elected to retain the current system of natural water drainage through inlet sluices to the Wadden Sea for as long as possible.

The Cabinet has decided to unlink the Markermeer lake and the Veluwerandmeren lakes from the IJsselmeer lake. The result is a water level management in the Markermeer-IJmeer lake and the Veluwerandmeren lakes that corresponds far better with what is needed for ecologically sustainable development. It also opens up possibilities for limited building activities in the Markermeer-IJmeer lake outside of the dyke. A pumping station will be built for the Houtribdijk.

The Cabinet is opting to allow a restricted number of developments outside the dykes that take the spatial quality of the area into account. The loss of water storage capacity as a result of developments outside of the dykes does not have to be compensated.

The Cabinet has decided to reinforce the IJsselmeer dam (Afsluitdijk), while endeavouring to combine this with a multifunctional arrangement that meshes with the existing core qualities of the IJsselmeer lake area and makes allowance for the lake's strategic freshwater supply in the long term.

The south-west Delta is to be given a dynamic quality. Working on flood defences remains crucial in the south-west Delta. The coastal foundation zone will grow naturally with rising sea levels. The northern Delta reservoir and the Volkerak-Zoommeer lake will have to provide sufficient drainage and storage capacity to cope with the increase in discharge from the major rivers. Reinstating tidal dynamics increases the self-cleansing and natural production capacity of the water and ensures a better distribution of the nutrient load in the various bodies of water. Fish can swim from the sea to the rivers and vice versa. Possible solutions for addressing sand demand in the Oosterschelde estuary are being explored, using a variety of resources, including sand replenishment.

Reinstating tidal dynamics does mean, however, that the targets of the Water Framework Directive in the river basin management plans for some of the waters will have to be adjusted in six years' time. This applies to the Volkerak-Zoommeer lake, for example, into which salt will again be allowed before 2015.

The North Sea will become more sustainable. The Cabinet is opting to use the North Sea in a way that is sustainable and safe and makes efficient use of space, while keeping it in balance with the marine eco-system as set out in the Water Framework Directive, the Marine Strategy Framework Directive, the OSPAR convention and the Bird and Habitat Directive. In consultation with the Dutch fishing sector, nature protection organisations and other EU member states, and within the framework of the European Common Fisheries Policy, the focus is on working towards the sustainability of fishing in the North Sea. Views across the sea to the horizon are to remain open.

Within international frameworks, the Cabinet is giving priority to the following activities that are of national importance for the Netherlands:

- Sand extraction and replenishment: sufficient space for protecting the coast, counteracting flood risk and for fill sand on land;
- Sustainable (wind) energy: space for 6,000 Megawatt of wind energy on the North Sea in 2020 (at least 1,000 km^2 , creating conditions for further (international) growth after 2020;
- Oil and gas field development: extracting as much natural gas and oil from the Dutch fields in the North Sea as possible;
- Sea shipping: building a system of traffic separation schemes, clearways and anchoring areas allowing safe and prompt handling of shipping;
- Defence areas at sea.

Existing and new users will be informed of the space available for new activities and the conditions attached.

Urban areas to become more liveable. Tasks such as those that involve living, working, mobility, leisure activities, landscape and nature, water and the environment are to be addressed cohesively. The aim is to increase green spaces and water in city developments, making urban areas more attractive and liveable. In this context, the central government is encouraging living on water, which can contribute towards a climate-resistant blueprint of the Netherlands because it is a form of dwelling that can be combined with space for water.

Advanced urbanisation and climate change are being taken into consideration in the approach to the urban water task, and where possible linked to the dynamics of the city. The implementation of measures is being combined with the restructuring of existing built-up areas and the creation of green zones in and around the city. Combining water and green zones offers plenty of opportunities to make urban water systems more robust and climate-resistant. Good connections between urban water

systems and the surrounding land contribute towards good quality water and landscape. Water offers potential for improving the living environment in existing urban settlements. Best practices applied elsewhere in the world will be inventoried in the planning period and Dutch cities will be involved.

The Netherlands works with water on a worldwide scale

The Cabinet wants the Netherlands to co-operate actively with countries in low-lying delta areas, protecting them against floods and ensuring sufficient and clean water. Central to this are climate adaptation and contributing towards achieving the millennium goals. The Cabinet is focusing its attention on a number of deltas and, in 2009, will be choosing between the Jakarta, the Mekong, the Ganges/Brahmaputra, the Incomati and the Nile deltas. In doing this, the Netherlands will be entering into long-term co-operation agreements. These partnerships will be based on the existing Partners for Water (*Partners voor Water*) programme, which is to be extended for a period of six years to 2015. In addition, where opportunities arise and a demand for Dutch technology and knowledge is made known, the Cabinet is opting for an approach based on a global positioning of the water and delta technology sectors of industry. An international 'Water Sector Marketing Programme' (*Marketing Programma Watersector*) is to be developed in 2012.

Taking the plunge!

With this National Water Plan, the Cabinet has opted for a future-driven national water policy based on concrete measures that can be taken now. A plan the Cabinet wants to realise with you: working towards a safe and liveable Netherlands, now and in the future.