First National report on Biological Diversity Government of The Netherlands

Conference of Parties to the Convention on Biological Diversity
Buenos Aires, Argentina, 1996

1. Foreword
2. Resumé
3. Summary
4. Introduction
5. Policy framework
6. Objectives
7. Strategy
8. Budget
9. Evaluation information
10. Colofon

1. Foreword

The ratification of the Convention on Biological Diversity by The Netherlands on 12 July 1994 was a formal recognition by the Netherlands Government of the new opportunities offered by the Convention for closer international co-operation, and for pursuing the integration of biodiversity objectives within national sectoral policies. We will pursue the conservation and sustainable use of biodiversity within the framework of the Convention, in recognition of both our international responsibilities and our own national interests.

A number of motives underpin our support for the Convention. Biodiversity has for a long time been closely interwoven with all aspects of Dutch society, and is one of the mainstays of important economic sectors in our country, such as agriculture and horticulture, livestock farming, forestry, fisheries, recreation and tourism, and their ancillary service and research communities. There is also a great deal of support for the conservation of biodiversity in The Netherlands, particularly in the form of nature conservation and environmental protection: more than 15% of the adult population are members of a nature conservation organization. The Netherlands forms an integral part of numerous ecological relations spanning the globe: our many wetlands, for example, make our country an important node in the West Palaearctic bird migration route; while closer to home, the delta area and the coastal waters - the Wadden Sea in particular - play a vital role in the North Sea ecosystem. Moreover, various sectors of the Dutch economy, from tourism to hydraulic engineering and from agriculture to transportation, directly or indirectly affect biodiversity, both at home and abroad. In addition, we gladly share with other countries the scientific knowledge and technology generated by our research community.

One of the preconditions for successful implementation of the Biodiversity Convention is active participation by all Parties. National reports are an important aid to achieving this because they enable an optimal exchange of information, allow us to learn from one another, and provide a platform for future co-operation. This should involve an open discussion about relevant initiatives and processes, the information and technologies available - and their shortcomings. We should not restrict ourselves to success stories, but be equally concerned with providing an understanding of the problems encountered on the way, the solutions found and those still being sought.

The document before you is our response to the reporting obligations agreed upon during the second Conference of the Parties (Jakarta, 1995). At the same time it meets the demand for a description in English of Dutch policy relating to biodiversity. This policy is set out in the Strategic Action Plan for Biodiversity, which I have presented to Parliament with the ministers for Housing, Spatial Planning and the Environment and for Development Co-operation, and on behalf of the Minister for Transport, Public Works and Water Management, the Minister for Education, Cultural Affairs and Science, the Minister for Economic Affairs and the Minister for Foreign Affairs.

J.J. van Aartsen
Minister for Agriculture, Nature Management and Fisheries

2. Resumé

Le Gouvernement néerlandais voit la Convention sur la Diversité Biologique comme une nouvelle occasion de poursuivre la coopération internationale et l'intégration des objectifs de conservation de la biodiversité dans les politiques sectorielles nationales. Ce rapport national a été compilé pour informer la Conférence des Parties à la Convention, de la contribution du Gouvernement néerlandais à la mise en application de la Convention. Les Pays-Bas ont une structure institutionnelle hautement développée, une connaissance et une base technologique avancées ainsi qu'un système approfondi de la domaine de la nature et de l'environnement. Malgré cela, la biodiversité néerlandaise est sévèrement menacée. Le défi auquel fait face ce pays densément peuplé est de savoir comment arriver à la conservation et à l'utilisation durable de la biodiversité - en termes de richesse, d'étendue et de qualité de ses ressources naturelles - à travers un effort commun motivé par un sens de responsabilité partagé.

Pour aborder les responsabilités attribuées aux Pays-Bas, d'après les termes de la Convention sur la Biodiversité, la stratégie du Gouvernement néerlandais s'appuie sur l'application des politiques existantes, et ceci est détaillé davantage dans le Plan d'Action stratégique pour la Biodiversité. Les politiques existantes pour la nature, l'environnement, la gestion de l'eau, la planification spatiale, l'agriculture et la coopération de développement, répondent toutes aux dispositions de l'Article 6 de la Convention. Le Plan d'Action stratégique s'étend sur un nombre de sujets, par exemple, la conservation de la variation génétique dans l'agriculture d'élevage et des variétés cultivées. Une des actions comprises dans le Plan d'Action stratégique ayant déjà été complétée, est la préparation du Programme international de la gestion de la nature pour les années 1996 à 2000. Il s'agit d'un programme qui définit les voies dans lesquelles le Gouvernement néerlandais intensifiera ses efforts de conservation de la biodiversité à l'intérieur d'une structure pan-Européenne globale. Dans le Plan stratégique, une attention particulière est accordée à la biodiversité hors des zones protégées, de plus, des efforts supplémentaires sont dirigés vers la conservation et l'exploitation durable des ressources génétiques pour l'alimentation et l'agriculture. Un autre aspect spécifique de la politique néerlandaise pour la biodiversité, est d'accroître le potentiel national générant la connaissance qui peut être appliquée à la conservation de la biodiversité globale.

Le soutien du grand public est essentiel à la réalisation de ces plans et de ces politiques. Il y a déjà un grand appui qui est apporté à la conservation de la biodiversité aux Pays-Bas. On retrouve des preuves de cela dans le taux élevé d'adhésions aux organisations environnementales et de conservation de la nature, également dans le nombre croissant de fermiers participant à la gestion de la nature et dans l'existence du Forum sur la Biodiversité néerlandaise - une association de groupes d'intérêt variés qui fournit une tribune permettant la discussion critique sur les politiques et les programmes du gouvernement. Le Gouvernement néerlandais compte sur tous ces partenaires et groupements pour contribuer à surmonter les nombreux obstacles qui nuisent à la conservation efficace et à l'exploitation durable de la biodiversité. Sa stratégie pour atteindre ces buts communs est basée sur la reconnaissance de responsabilités individuelles et la stimulation d'un dialogue actif entre le gouvernement et les divers groupes d'intérêt présents dans la société au sens large.

Afin de suivre attentivement le progrès, suivi et évaluation sont absolument essentiels. À cet effet, un Bureau de Planification de la Conservation de la nature est en train d'être créé afin de fournir l'information requise. Chaque année le Parlement néerlandais sera informé des progrès réalisés dans l'atteinte des objectifs de la principale politique.

3. Summary

The Netherlands Government views the Convention on Biological Diversity (hereafter, the Convention, or the Biodiversity Convention) as a new opportunity for pursuing international co-operation and the integration of biodiversity conservation objectives into national sectoral policies. This national report has been compiled to inform the Conference of the Parties to the Convention about the Netherlands Government's contributions to implementing the Convention. The Netherlands has a highly developed institutional framework, an advanced knowledge and technological base, and a thorough system of planning in the field of nature and the environment. Despite this, Dutch biodiversity is under severe threat. The challenge facing this densely populated country is how to achieve the conservation and sustainable use of biodiversity - in terms of the richness, extent and quality of her natural resources - through a communal effort motivated by a shared sense of responsibility.

The Government's strategy for addressing the responsibilities placed on The Netherlands by the terms of the

Biodiversity Convention is rooted in the implementation of existing policies, and is further elaborated in the Strategic Action Plan for Biodiversity. Existing policies for nature, the environment, water management, spatial planning, agriculture and development co-operation together satisfy the provisions of Article 6 of the Convention. The Strategic Action Plan expands upon a number of themes, for example the conservation of genetic variation within agricultural breeds and cultivars. One of the actions included in the Strategic Action Plan which has already been completed is the preparation of the Programme International Nature Management for 1996-2000, which sets out the ways in which the Netherlands Government will intensify its efforts to conserve biodiversity within a pan-European and global framework. Specific attention is being paid to biodiversity outside protected areas, and extra efforts are being directed towards conserving and sustainably utilizing genetic resources in agriculture. Another specific aspect of Dutch policy for biodiversity is to augment the national capacity for generating knowledge which can be applied to the conservation of global biodiversity.

Broad public support is essential if these policies and plans are to be realized. There is already much support for the conservation of biodiversity in The Netherlands. Evidence for this can be found in the large membership of nature conservation and environmental organizations, the growing number of farmers involved in nature management, and the existence of the Dutch Biodiversity Forum - an association of various interest groups which provides a valuable platform for the critical discussion of government policies and programmes. The Netherlands Government relies on all these partners and groupings to help overcome the numerous obstacles which stand in the way of the effective conservation and sustainable use of biodiversity. Its strategy for achieving these common goals is based on the recognition of individual responsibilities, and an active dialogue between government and the various interest groups in society at large.

Monitoring and evaluation are crucial for keeping track of progress. A Nature Conservation Planning Office is being established to supply the information needed to do this, and each year the Dutch Parliament will be informed of the progress being made in achieving the main policy objectives.

4. Introduction

Biodiversity in The Netherlands

About 2000 years ago four main landscape types covered most of the area which is now The Netherlands: wooded sandy regions inland, giving way to a zone of marshes, swamps and fens, separated from the sea by a strip of coastal dunes which provided a natural defence against the sea, and cutting through these the river landscape opening out into a large delta.

Both the centuries-old struggle to keep out the water and a series of agricultural developments radically altered the natural landscape and its biodiversity during the last 1000 years. Water management and land reclamation techniques progressed rapidly through a combination of dike construction and drainage (e.g. by using windmills) to create the now famous Dutch polders. These measures were taken both to protect the population and improve conditions for farming. Initially this lead to a considerable increase in the range and complexity of land use systems, but during the last 100 years or so this complex pattern of diverse agricultural systems has largely given way to a set of monocultures.

Providing protection against both the sea and the rivers continues to be a major issue. The 'Delta Works' was initiated after a disastrous flood in 1953; this is a large-scale programme of works to prevent further breaches of the sea defences. Estuaries have been closed off and dikes and embankments raised and reinforced. At the moment, certain stretches of river dikes are being raised and strengthened after the threat of severe flooding along the Rhine and Meuse in 1995. The creation of a dense network of natural and artificial waterways has had a great effect upon the 'Dutch delta ecosystem', and both land and water areas have been put to a whole range of new uses, such as recreational activities, the extraction of drinking water, agriculture and fisheries.

Agriculture and water management have not been the only factors influencing biodiversity. More recently, reductions in the overall size of nature areas and their fragmentation into smaller units have continued rapidly, often as a result of urban expansion and road construction. Furthermore, wildlife, plants, and natural processes are being placed under increasing strain by the pollution of water, air and soils. At present the number of wild flora and fauna species is estimated to be 36,000, but the exact figure is hard to determine. Information on small species in

particular (algae, protozoa, etc.) is limited. Reinforcing international and national policy The Netherlands Government signed the Convention on Biological Diversity during the UN Conference on Environment and Development (Rio de Janeiro, 1992) in order to reinforce international and national efforts for the conservation and sustainable use of biodiversity, taking into account the principles of complementarity and synergy. These principles need to be applied at all levels. The Netherlands will pursue ways to effectively link the goals, activities and players involved in national and international policy; this will be crucial for implementing the Convention. Internationally, The Netherlands places great value upon co-operation between the Secretariat of the Convention and other relevant conventions and co-operation agreements, and on the harmonization of collective efforts.

The Netherlands will continue its active contribution to numerous conventions and international fora (including the European Union, the Council of Europe, and the United Nations) concerned with nature conservation, specific ecosystems, biological and genetic resources, the environment, agriculture, etc. Furthermore, the Netherlands Government has decided to intensify its bilateral co-operation with a number of countries in the field of biodiversity.

The Netherlands fully meets the formal policy and legislative obligations placed upon her by the Convention. However, biodiversity in The Netherlands, as in the rest of the world, has already been drastically reduced; a great deal of effort will be needed to reverse this decline. Furthermore, current social trends offer new opportunities for action. These trends include close co-operation between government and social groupings, and changes in international relations. Together, these developments form powerful grounds for The Netherlands to intensify and expand upon current policy within the framework of the Convention. This is manifested, among other ways, in the search for closer and more effective co-operation between government, private organizations and the business and research communities, both nationally and internationally. The Netherlands Government places great emphasis on the search for the efficient and selective harmonization of efforts within existing frameworks.

5. Policy framework

The formulation of policy for biodiversity and responsibilities

In the run up to the United Nations Conference on Environment and Development and in subsequent years, the Netherlands Government has adopted a series of policy documents in response to the problems facing nature and the environment, both nationally and internationally. The statutory basis for these policies is provided by the Nature Conservation Act, the Spatial Planning Act, the Environmental Management Act, and the Water Management Act.

Ministries and important policy areas for (integrating) biodiversity

Ministry	Policy areas
Agriculture, Nature Management and Fisheries	nature, forests, wildlife management, landscape, agriculture, agricultural technology, sea and inland fisheries, tropical rain forests, nature and environmental education, outdoor recreation, science and technology
Housing, Spatial Planning and the Environment	spatial planning, environment, environmental risk, biotechnology
Transport, Public works and Water Management	transport, public works, water management
Foreign Affairs/Development Co-operation	foreign policy, development co-operation and co-operation with countries in Central and Eastern Europe and the former GOS countries
Economic Affairs	trade, innovation
Education, Cultural Affairs and Science	education, science

At the time of the Government's ratification of the Convention implementation of these policies was in full force. The response to the Biodiversity Convention did not, therefore, have to be built up from scratch. There was, however, a need to assess the coherence of existing policies, to unite the energies of those involved - both within and outside government circles - and to add new elements to existing policy where appropriate and expedient. The following steps were taken:

Step 1 A formal analysis of the compatibility of existing policy frameworks with the Convention. This led to the conclusion that in general The Netherlands meets the obligations set out in the Convention, which could then be ratified.

Step 2 A broad exploration of the new opportunities and options arising from the provisions of the Convention and Agenda 21.

Step 3 Identification of the main themes and pivotal activities. The main themes for new policy were then worked up into innovative and pragmatic actions, arrived at through a broad interdepartmental consultative process which also involved numerous environmental and nature conservation organizations, research institutes, information and reference centres, and representatives from a number of economic sectors.

Step 4 Assembling the results of this process in a Strategic Action Plan for Biodiversity. This was presented to Parliament, which adopted the new policy in 1995.

As a result of this stepwise approach the national policy framework for biodiversity and the national strategy referred to in Article 6 of the Convention are provided by:

- the policy frameworks existing at the time of ratification of the Convention, in particular those relating to nature conservation, the environment, water management, spatial planning and development co-operation; and
- the Strategic Action Plan for Biodiversity, including a formal analysis of the implications of the Convention for Dutch policy.

6. Objectives

Important policy areas for biodiversity

Before describing the additional activities initiated under the Strategic Action Plan for Biodiversity, the most important policy areas and their respective objectives are first discussed in the following pages. The policy areas are:

- Nature
- Environment
- Water management
- Spatial planning
- Development co-operation.
- Agriculture
- Fisheries

Nature policy

The main objective of the Nature Policy Plan, and those of the Forest Policy Plan and the Landscape Policy Paper, can be summarized as 'the sustainable conservation, rehabilitation and development of nature and landscape, as well as the basic resources provided by nature, forests and landscapes for current and future uses'. This objective comprises two main elements:

- a diversity of plant and animal species, ecosystems, landscape values (biological diversity, naturalness and distinctiveness); and
- the sustainable use of nature, forests and landscapes, for example for the production of timber and food, for recreational use, and as storehouses of genetic material.

National Ecological Network

An important instrument for shaping nature policy is the development of the National Ecological Network of The Netherlands. The National Ecological Network is a coherent network of areas, forming a durable basis for the ecosystems and species considered important both nationally and internationally. The network consists of core

areas, nature development areas and ecological corridors. The aim is to have this network in place within a period of 30 years. The sustainable development of the network is supported by a buffer policy aimed at removing or minimizing negative external influences on the core areas. This National Ecological Network will eventually cover about 700,000 hectares of land. When fully in place, the network will cover 17% of the territory of The Netherlands. About 130,000 hectares will consist of natural ecosystems; the remainder will consist of semi-natural or multifunctional ecosystems. Relevant in this respect will be the amount of attention which is paid to the conservation of biodiversity outside the National Ecological Network.

The Government has defined the National Ecological Network in outline. 'Target nature types' have been drawn up for those ecosystems found in The Netherlands, and presented in a series of 'model ecosystem' descriptions. The target nature types are defined as combinations of plant communities characterized by a number of specific target species, the appropriate management strategies and minimum areas required to sustain them, and process-indicating parameters. Objectives for the total areas of each target nature type have also been set and indicated in more detail in area-based strategies. The definitive zoning and designation of network areas is set out in regional plans drawn up and adopted by the provinces, and defined in more detail in local land use plans. The area-based strategies provide guidance for these formal plans. To complete the network, land will be purchased and restored to a natural state in areas adjoining and linking existing nature areas.

The National Ecological Network will include:

- nature reserves, country estates and woodlands;
- areas designated under the Nature Conservation Act;
- those areas of 'Heritage Landscapes' to be designated as nature reserves or (agricultural) management areas; and
- National Parks, lowland streams and stream valleys, lakes, large water bodies, and (the coastal zone of) the North Sea.

The key elements of the Dutch network of protected areas will form a part of the Natura 2000 network under the EU Habitat Directive and of the pan-European ecological network, the development of which – during a period of ten years – is one of the key objectives of the Pan-European Biological and Landscape Diversity Strategy. The Strategy was endorsed by the environment ministers of 55 countries at the UN-ECE Environment for Europe Conference, held in Sofia, Bulgaria, in 1995.

Environmental policy

An adequate environmental quality is a basic requirement for the conservation and sustainable use of biodiversity. Environment policy, as set out in the National Environmental Policy Plans 1 and 2 (1989 and 1993) is geared to attaining an environmental quality at which the carrying capacity of the environment can be sustained. Consequently, the level of disturbance to the environment is subject to control, and limits have been set for the type and concentrations of substances permitted in the environment. This obviously implies restrictions on the nature and extent of human activities permitted, both in The Netherlands and abroad.

One of the main thrusts of Dutch policy is to bring about structural changes to production processes and patterns of consumption. By importing and exporting materials, products and services, The Netherlands appropriates the natural wealth of other regions in the world; the effects this has on global biodiversity, the associated risks, and appropriate policy responses are the subjects of ongoing research. Special attention is being paid to the role of biodiversity in ecosystem functioning, and the goods and services it can provide for society. In this context, studies are underway to determine the role played by dormant life forms (cryptobiota). Indicators are being developed to determine the functioning of the Life Support System in relation to changes in biodiversity, and they will form an integral part of the biodiversity policy of The Netherlands.

Setting environmental quality parameters for nature conservation target types

Generally applicable standards for environmental quality are not sufficient in themselves for conserving species and ecosystems; each species and type of ecosystem has its own specific requirements regarding the quality of the environment. To meet these requirements, additional area-based policies are being pursued within and outside the National Ecological Network. Recently developed models (such as the

multiple stress model for vegetation) are being used to investigate the relations between specific target nature types and environmental quality. Specific models for each target nature type are used to determine the acceptable range (or tolerance range) of environmental conditions with respect to acidification, eutrophication and desiccation.

The ecological amplitude of a species describes the optimal range of a species as a function of environmental variables reflecting moisture levels, nutrient levels and the degree of acidity. The optimal range is equal to the values of these variables at which the species within the target nature type have the best chance of survival. Combining the ecological amplitudes of each species within a target type results in the tolerance ranges.

Water management

Water management policy (set out in the Third Policy Document on Water Management and the Evaluation of Water Management Policy) is geared towards developing and implementing integral water management systems. This not only involves the integration of policies within the field of water management itself (water quality and quantity of both surface water and groundwater), but also its harmonization with spatial planning, environment and nature policies.

Model ecosystems illustrating policy goals have been formulated for the various water system types such as lakes, rivers, the Wadden Sea, and the North Sea. These model systems are expressed in terms of a number of indicator species and target species. Together they provide a reference for measuring the quality of water ecosystems, expressed as the difference between the actual and desired state of affairs. This method is known by the Dutch acronym 'AMOEBE'.

Coastal and marine biodiversity, a case of complementarity and synergy

An international policy framework for coastal and marine biodiversity is gradually taking shape. The Netherlands Government will actively contribute to this process, taking into account the complementarity and synergy between national and international frameworks and policies, such as the International North Sea Conferences and the OSPAR Convention for the protection of the marine environment of the North-East Atlantic.

Recently, a start has been made with developing integral approaches which allow adequate attention to be paid to marine biodiversity. Within the framework of both the OSPAR Convention and the North Sea Conferences, the participating coastal states are currently working to develop a strategy for the protection of species and habitats. The Netherlands has taken on the role of 'lead country' in the development of this strategy. Efforts are being made to develop classification systems and a map of marine habitats, and to select species and habitats worthy of protection. Similar work is being done for the Baltic Sea area (coastal states co-operating under the Helsinki Convention) and the Mediterranean Sea (the Barcelona Convention). Such international initiatives at the level of a regional sea are promising examples of how objectives of the Biodiversity Convention relating to marine and coastal biodiversity might be implemented at the regional level. For further information see "The Netherlands - coastal and marine biological diversity", published as a national report to the second Conference of the Parties to the Convention on Biological Diversity (1995) and the fourth gathering of the Commission on Sustainable Development (1996).

Spatial planning

The National Structure Plan for the Rural Areas sets out the objectives and main themes covered by Dutch rural planning policy: farming and horticulture, nature, landscapes and outdoor recreation, tourism, forestry and fisheries, and the interplay between them. This National Structure Plan has its statutory basis in the Spatial Planning Act and is binding on plans generated at lower administrative levels. The goal of the National Structure Plan for the Rural Areas is to 'support the development of those spatial and ecological conditions which will best guarantee the diversity, coherence and sustainability of the physical environment'.

National Report on Biological Diversity; Government of The Netherlands

Objectives for those areas where the accent lies on farming is to achieve and maintain a general level of ecological value through the application of appropriate management practices. This is not self-regulating nature, but is reflected in the presence of relatively small features in the open landscape and around farm buildings (such as small woods, ditches, embankments and hedgerows). Action is taken by local government and interest groups. The Ministry of Agriculture, Nature Management and Fisheries has recently expanded its support for (agricultural) management initiatives for the conservation and sustainable use of these forms of biodiversity in the countryside.

The allocation of land uses in The Netherlands has generated a wide-ranging debate. Economic, employment, infrastructure, raw materials and energy, biodiversity, and environmental interests have to be integrated in order to realize sustainable development. All the relevant ministerial departments are working together to prepare a common environmental perspective for the year 2030. The conservation and sustainable use of biodiversity will play a significant part in this process.

Metropolitan landscape parks

Considering the high degree of urbanization in The Netherlands, it is not only the rural areas but also urban environments which present both challenges and opportunities for integrating biodiversity objectives into planning policies. This will involve a combination of improvements to the quality of the environment, bringing people into closer contact with nature, and increasing the opportunities to enjoy nature (through outdoor recreation, for example).

Metropolitan landscape parks will have an important part to play in this. These are areas which lie in direct contact with both urban and rural environments. The Government has developed a policy scenario for such parks after holding a round of discussions with the various national, provincial, and local government authorities, advisory bodies, interest groups and the market (including developers and investors). The core idea is to incorporate ecological considerations more fully into urban development, involving not just green areas in the vicinity of the city but also opening up 'green arteries' through urban areas in order to (re-)establish and maintain ecological relations with the surrounding rural area. A strategic approach is adopted whenever possible, such as the selective use of landscape projects to prevent urban expansion into specific areas, or to create green corridors. The ultimate goal is to raise the ecological, economic and aesthetic value of residential, working and recreational environments.

The Randstad is an example of a metropolitan landscape park or 'green metropolis', consisting of the four urban centres of Amsterdam, The Hague, Rotterdam and Utrecht, which surround the central 'Green Heart'. More than six million people live in this most densely populated part of The Netherlands. Four characteristic landscape types are to be found here: the coastal dunes, the lower reaches of two major European river systems, a number of push moraines created during the Ice Age, and peat grasslands. The green open areas in the Randstad are home to a wide variety of land uses: farming (livestock, market gardening and greenhouse horticulture), water and land-based recreation, nature conservation, and drinking water storage basins. Increasing population pressures are placing more and more demands upon the available space for new urban development and transport infrastructure. Against this background, the challenge for the coming decades is to create a coherent and sustainable green infrastructure with significant value for leisure and recreation, nature conservation and forestry.

Development co-operation

Development co-operation policy integrates biodiversity and sustainable nature management objectives in an effort to achieve sustainable development; negative impacts on nature and the environment in developing countries will be avoided. Biodiversity is an important criterion in the environmental screening procedure, and an environmental impact assessment is required for activities which take place in ecologically sensitive areas. Where possible biodiversity and sustainable nature management objectives will be incorporated in projects designed to alleviate poverty and in economic development programmes. Special attention is paid to the protection of natural ecosystems, forests, species habitats and traditional agricultural breeds and cultivars, and so great value is attached to areas of origin of agricultural crop varieties. The Government has drawn up a statement on tropical rain forests in which the protection and sustainable management of these forests are the main objectives.

The Directorate-General of Development Co-operation has drawn up Sectoral Policy Papers on biodiversity and on forests and forestry which fill in the details of its policy concerning biodiversity, tropical rainforests, wetlands, marine ecosystems and coastal zones, savannahs, steppes and mountain ecosystems.

Environmental assessment

The Netherlands considers reviewing the impacts on biodiversity resulting from the activities she funds to be of great importance. The use of environmental impact assessment can prevent or reduce negative impacts and help to ensure that expenditure also benefits biodiversity. Such assessments are made for Dutch development co-operation projects, and biodiversity is addressed as a specific issue during these reviews. A study will be made of how the impacts on biodiversity of other forms of Dutch expenditure abroad can be assessed.

Sustainable Development Agreements

During the UN Conference on Environment and Development (UNCED, Rio de Janeiro, 1992) Costa Rica, Bhutan, Benin and The Netherlands signed a co-operation agreement for sustainable development. These are bilateral, trilateral and quadrilateral agreements for implementing the UNCED agreements, and are based on the principles of equality, reciprocal effort, and the mutual acquisition of knowledge and experience.

The four countries have identified the conservation and sustainable use of biodiversity (including access to genetic resources and biosafety) to be a main policy priority. In Benin strengthening the institutional capacity for nature management is the first priority, and will involve short training programmes to create a pool of expertise for setting up a biodiversity centre. Birds migrating between wetlands in The Netherlands and Benin form a direct link between the two countries, which are preparing activities to facilitate the development of guidelines for wetland management. At the same time, this bilateral co-operation can be used to explore the possibilities for drawing up a wetlands agreement setting out how Dutch activities in foreign wetlands can be adapted to local ecological processes, including the application of the principles laid down in the Biodiversity Convention. The National Institute of Public Health and Environmental Protection (RIVM) is collaborating with the Government of Bhutan to develop a number of biodiversity indicators for comparing biodiversity in both countries. The Netherlands is also financing the establishment of the Black Mountain National Park in Bhutan. The different underlying social values and views on biodiversity conservation held by the two countries have become apparent during this project. This mutual learning process may in future be expressed through the twinning of nature reserves and/or nature conservation organizations in both countries. This approach is also being considered for Dutch and Costa Rican nature reserves. Possibilities for co-operation in the field of biosafety under the Biodiversity Convention is also being discussed by The Netherlands and Costa Rica.

Agriculture

Dutch agricultural policy has as its goal 'competitive, safe, and sustainable agriculture'. 'Sustainable' here means, in addition to the socio-economic aspects, the development and maintenance of the physical (productive) environment as a natural resource. There is now a clearly discernible shift in farm management in The Netherlands in order to address the environmental challenges, in part caused by years of intensive farming practices. The negative environmental impacts of agriculture are being reduced by limiting the production of animal manure and the use of pesticides, fertilizers and water on farms. Manure produced on livestock farms must now be registered in a mandatory system of mineral accounting. This has been introduced in reaction to the rising concentrations of nitrates and phosphates in groundwater, and the problems this causes both for the supply of drinking water and the health of ecosystems. Limits have been set on the amount of manure which may be spread on the land; excess amounts have to be removed, for which a charge is made. Experiments are also underway with a form of water accounting coupled with the introduction of tailor-made irrigation systems in an attempt to find ways of reversing the depletion of groundwater caused by its extraction for irrigating farmland.

Keen efforts are also being made in the field of products and production processes to encourage and support socio-economic sustainability. 'Biological' farming methods - which take account of ecological circumstances and make use of organic fertilizers and natural methods of pest control - are currently gaining ground. The success of this form of farming largely depends upon the relationship between price and quality, and will ultimately be determined by the wishes of the customer. The Netherlands Government's role will be to provide incentives, but will also be influenced by developments in European agricultural policy.

On the management side, there are all sorts of initiatives which allow the extensification of production. For

example, a programme is being developed for the collective management of nature areas and valuable landscapes in rural areas, to be undertaken by farmers' organizations, provincial and local authorities and private individuals. Given the importance of rural areas for recreation and tourism, this management role offers farmers opportunities for developing sustainable uses for natural resources while at the same time developing socially and economically sustainable farming systems. Fisheries

Dutch marine fisheries policy is to a considerable extent determined by the European Union's Common Fisheries Policy. This policy formally recognizes the ecological aspects of fisheries, but these have to be more fully integrated in the implementation of policy. Most of the efforts being made at the European level are directed at reducing catch efforts (the Multi-Annual Guidance Programmes) and determining Total Allowable Catches for commercial species. Discussions are underway on further reducing bycatches, reducing the use of driftnets, and closing off an area of the North sea for research into the impacts of fishing on the marine environment. Impacts of fishing on the marine environment also appears on the agenda of the North Sea Ministers, who will devote an Intermediate Ministerial Meeting to this subject in 1997. At the global level the FAO Code of Conduct for responsible fisheries may serve as a basis for such management systems. Policies for Dutch coastal fisheries, which include shellfish and shrimp fisheries, are largely determined by the Netherlands Government itself. The Policy Document on Marine and Coastal Fisheries attempts to harmonize fisheries and nature conservation interests, and has led to closing a number of areas in the Wadden Sea and the Schelde estuary to fishing. In addition, a regulation has been drawn up to allow sufficient food to be reserved for coastal birds and waders during lean years. Evaluation of these measures is expected to take place next year.

7. Strategy

- Strategic Action Plan for Biodiversity
- Agrobiodiversity
- Programme International Nature Management
- Partnership approach

Strategic Action Plan for Biodiversity

Dutch policy for biodiversity is based upon the key policy objectives which have already been mentioned in the preceding pages. The Strategic Action Plan complements and builds upon these existing policies, and introduces a number of new policies specifically geared to the conservation and sustainable use of biodiversity. A clear choice has been made to integrate and further develop new and additional policy themes contained in the Convention into these existing policy frameworks.

Policy themes within the Strategic Action Plan for Biodiversity:

- putting policies into practice, in particular for the areas outside the National Ecological Network;
- widening the concept of biodiversity to include cryptobiota, the Life Support System, the conservation of genetic variation within species, biotechnology, etc.;
- augmenting the capacity of Dutch institutions to provide the knowledge required for conserving global biodiversity;
- improving conditions for research, technology transfer and the implementation of policy;
- raising political and administrative awareness, both nationally and internationally.

The Strategic Action Plan is a joint product of the ministries of Agriculture, Nature Management and Fisheries; Housing, Spatial Planning and the Environment; Foreign Affairs / Development Co-operation; Economic Affairs; Transport, Public Works and Water Management; and Education, Culture and Science. Scientists, nature conservation and environmental organizations, and the business community have also contributed to the development of the Action Plan. The agreed work programme of the Conference of Parties to the Convention formed an important guideline for the Strategic Action Plan.

The actions to be taken are grouped within the following six themes:

- Biodiversity in policies for nature conservation, the environment, spatial planning, and water management;

- Biodiversity in agricultural production processes;
- Policy in an international context;
- Science policy and monitoring;
- Technology and the exchange of information.

Objectives and actions for further elaboration have been formulated for each theme, based on an analysis of aspects of the Convention which the Netherlands Government has as yet not sufficiently integrated into her policies. The various players involved and the instruments to be used are described for each action. Each year Parliament will be informed of the progress being made. Every third year an analysis will be made of the implementation of the Strategic Action Plan and the results presented to Parliament.

Agrobiodiversity

The Netherlands Government considers the conservation and sustainable use of agrobiodiversity to be an integral part of the policy for sustainable agriculture and rural development (SARD). It also contributes to integrated land use planning as mentioned in UNCED – Agenda 21. In relation to the genetic resources within the agro-industrial system itself, the Government is aiming for the in situ and ex situ conservation and sustainable use of varieties of plants, animals and micro-organisms with an actual or potential value for agriculture.

International co-operation in this field is actively promoted, in particular by FAO, IPGRI and CGIAR. The Netherlands contributes substantially to field and research programmes on agrobiodiversity, particularly in developing countries, and supports the Centre for Genetic Resources Netherlands (CGN), the national gene bank for plant genetic resources for agriculture (with about 15,000 accessions). The Netherlands therefore contributes to the realization of the provisions agreed upon during the FAO Conference on Plant Genetic Resources (Leipzig, 1996), as laid down in the Global Plan of Action. Furthermore, the Netherlands will co-operate actively in bringing the Undertaking on Plant Genetic Resources in line with the Biodiversity Convention.

The development of Dutch policy on agrobiodiversity takes account of the following:

- The fact that the developed countries are developing new, patented propagation and breeding techniques, while developing countries preserve indigenous varieties and breeds and wish to be remunerated for this.
- The problem of how to achieve a sustainable use of our cultural and natural inheritance at a time when gene erosion is proceeding at an alarming rate.
- In general, conservation in situ is to be preferred to conservation ex situ because this allows natural selection and the process of evolution to continue.
- Ex situ conservation is considered to be an indispensable supplementary strategy.
- Ex situ conservation in gene banks, herbaria, zoological and botanic gardens offers The Netherlands long-term prospects for the conservation of certain crops and collections.
- The sovereign rights of States over their own biological resources.
- The Dutch agricultural industry, which has an advanced and vigorous plant and animal breeding industry, has an interest in global access to genetic wealth.
- Dutch genetic resources are mainly to be found in plant gene banks.
- The Dutch Government provides funds for the plant gene banks (an animal gene bank is being established).
- The business community has an interest in maintaining gene banks, and so should consider contributing to these.
- The establishment of a network of ex situ conservation is a joint effort by the Government and the business community.
- 'Farmers' rights' and measures to reward the in situ manager.
- The concurrence of new (inter)national policy with GATT/WTO and TRIPS.

Programme International Nature Management

One of the concrete actions resulting from the Strategic Action Plan for Biodiversity is the interdepartmental Programme International Nature Management 1996-2000, which has been compiled in consultation with non-governmental organizations. The programme sets out how the Government wishes to intensify its efforts within both a European and a global context, including an extra budget of NLG15 million annually from 1997.

The Programme addresses the following issues:

- cross-border ecological connections with neighbouring countries;
- Dutch involvement in the degradation of nature elsewhere in the world;
- international nature conservation agreements in which The Netherlands participates;
- relevant Dutch expertise;
- the integration of policies for nature, the environment, water management etc.

Priority is given to biodiversity and European nature, and to a number of specific ecosystems, namely forests, wetlands, rivers, coastal zones and seas, and Antarctica. Activities are being prepared which address European nature, specific ecosystems, discussions with a range of other sectors, and co-operation with other partners. A number of actions range across more than one of these topics, an example being the 'wetlands agreement' which brings together various partners and policy areas (trade, research, tourism, consultancy, infrastructure, etc.). Dutch civil engineers are famous for their expertise. The water mangement sector is responsible for a proper integration of nature management in its water management activities. It can thus secure its position on the green market. The Netherlands Government will consult engineering firms engaged in projects abroad and see what the industry can do to contribute to the conservation and sustainable use of wetlands. The Netherlands Government will not support projects or agreements with countries which could cause severe damage to wetlands. Licensing and assessment criteria will have to be in blace by 1997.

Partnership approach

The Netherlands Government considers public involvement and active participation by all social groups to be of fundamental importance for achieving the conservation and sustainable use of biodiversity. This also applies to the international dialogue on biodiversity issues. A key element of this participation is making use of opportunities for groups and individuals to take up their own responsibilities in active dialogue with the authorities. Important preconditions for achieving this are clear policies and the will to work in partnership to enable resistance to certain policies to be transformed into the effective representation of interests and the creation of win-win situations.

In the Netherlands there is broad public support for the conservation and sustainable use of biodiversity. One manifestation of this support is the large membership of nature conservation and environmental organizations such as the Society for the Preservation of Nature in the Netherlands (more than 800,000), the Worldwide Fund for Nature (more than 700,000 in The Netherlands) and Greenpeace (more than 600,000 in The Netherlands). Many of these organizations belong to the Netherlands Biodiversity Forum, a critical platform for scrutinizing national and international policies. The Forum also supports the 'Netherlands for European Nature' campaign, a joint effort supported by many private organizations in the fields of nature conservation, the environment, recreation and tourism, and the Ministry of Agriculture, Nature Management and Fisheries.

There is still a long way to go before the wide range of interests in society can be united: farming, recreation, nature conservation and environmental interrests, forestry, hunting and estate management, water management and drinking water supply, mineral extraction, land development and other activities. The provision of information and negotiation leading to agreements made on a voluntary basis can help move this process forward. A range of private organizations form an important link with new partners. The Netherlands Government will actively involve the private sector in the (inter)national debate on biodiversity and will stimulate the use of economic incentives to do so. Furthermore, recent examples display innovative approaches to the conservation, and in particular the sustainable use, of biodiversity arising out of dialogue and co-operation between the private sector and (environmental) non-governmental organizations.

8. Budget

As the biodiversity policy of The Netherlands consists of the Strategic Action Plan for Biodiversity and the various related policy areas mentioned in this report, it is difficult to accurately determine the total budgets involved. Furthermore, the Government contributes substantially to international policies, programmes and projects in the field of biodiversity through bilateral and multilateral co-operation.

Budget lines for nature, environment and water management

There are numerous government budgets relevant to biodiversity (summarized below): some are geared towards creating suitable conditions for encouraging biodiversity at various scales, addressing among other aspects disturbance, emissions and loss of habitat; others are earmarked for specific incentives.

Examples of Government budgets for 1996 relevant to biodiversity at the national level.

themes subjects	**total amount**	
land acquisition	rural development projects; nature conservation; outdoor recreation; forestry and landscaping	NLG 178 million
spatial planning and land development	integrated rural development projects; water management and measures to tackle depletion of groundwater reserves; Randstad Green Structure; habitat (re-) creation projects and planting woodlands on farmland	NLG 379 million
nature management	management of large and vulnerable areas by the State Forest Service, the Society for the Preservation of Nature in The Netherlands, and the Provincial Landscape Trusts (the private organizations receive more than 40% of the budget)	NLG 282 million
other nature conservation	for nature conservation organizations which do not own land themselves; nature conservation and environmental education projects; international nature conservation	NLG 62 million
environmental technology and infrastructure	integrated area-based environmental policy; environmental technology and provision of expertise; support for non-governmental organizations; fiscal measures related to green investments	NLG 55 million
environmental quality policy	soil protection and remediation	NLG 460 million
life-cycle management and protection	corporate environmental care systems, including standardization and certification; environmental reporting and auditing	NLG 45 million
environmental research	integration of economics and ecology	NLG 110 million
water quality	the remediation of polluted underwater substrates	NLG 132 million
others	restoration of hydrological systems; habitat creation along the main rivers	NLG 87 million

Green financial services

Since the beginning of 1995, interest and dividend payments to individuals from environment-friendly financial investments are no longer taxed in The Netherlands. The capital must be invested in specific, approved 'green projec via 'green funds' recognized by the Government. An important condition is that the projects should be profitable in t own right. For nature conservation projects the financial returns may include money raised by the members of nature conservation organizations. To be eligible, projects must be for environmental protection, sustainable energy, the development and conservation of forests, nature and landscape, and the promotion of agricultural products.

The market for 'green financial services' consist of:

green investments (NLG 1 billion out of total investments of NLG 81 billion);	
green savings	(NLG 1.4 billion out of the total market for savings of NLG 213 billion);
green insurance	(NLG 100 million out of a t of NLG 770 billion); and
specific forest funds	(extent unknown, but total holdings in plantations are estimated to be in the order NLG 550 million).

In most of these products 'green' is interpreted very widely indeed; the real contribution towards the environment, a more specifically to the conservation and sustainable use of biodiversity, is not always clear. The Government sees a role here for organizations such as the Advertizing Standards Commission and consumers' organizations in promoti the real benefits for the natural environment to be gained through these funds.

International co-operation

Dutch expenditure on international biodiversity is channelled through a number of different programmes. The Directorate-General for Development Co-operation of the Ministry of Foreign Affairs has reserved NLG 150 million for policy development and forest projects, of which NLG 50 million is reserved for tropical rain forests. Money has been explicitly earmarked for other ecosystems as well - wetlands in particular - and for general aspects of biodiversity, including the development of institutions to carry policies through. In addition, attention is also paid to the conservation and sustainable use of biodiversity issues within regular development co-operation activities (but this is not quantified).

In 1996 an additional NLG 4 million will be made available for nature management in Central and Eastern Europe. This budget will be doubled in later years: in 1997 NLG 6.6 million, and from 1998 on NLG 8 million per annum. This budget is for biodiversity in general, European nature, forests, wetlands, migratory birds, and small innovative nature conservation projects. The Ministry of Agriculture, Nature Management and Fisheries' budget for international nature management (including international contributions) is NLG 4.5 million annually.

Other ministries have funds available for integrated water management, global environmental management (including the elaboration and implementation of Agenda 21), environmental management in Western and Eastern Europe, and for the development of international policies, including supporting research.

9. Evaluation information

National reports on nature, environment and water management

The quality of the natural environment in The Netherlands is the subject of regular reports. A large number of organizations are involved in the collection of data: private organizations, government institutes, water authorities and university departments. The National Reference Centre for Nature Management (IKC-N) published the report 'The State of Nature II' in 1994. This report contains an assessment of the current state of nature in The Netherlands based on the presence of plant and animal species and the degree of naturalness of the areas in which they exist. A limited number of species groups are being monitored for this purpose.

A Nature Conservation Planning Office is being set up to publish reviews of trends in the state of nature, and relate these to other social developments through the use of scenario studies.

Each year the National Institute for Public Health and Environmental Protection (RIVM) publishes a review of environmental quality in The Netherlands This contains an evaluation of the efficiency of policy measures which have been implemented, and the environmental impact of recent socio-economic developments. Once every four years the RIVM issues an Environmental Outlook in which the proposed environmental plans are evaluated, based on scenario studies.

The quality of the water systems in The Netherlands has been assessed by the Institute for Inland Water Management and Waste Water Treatment (RIZA) and the results used to further refine policies for integrated water management. The National Institute for Coastal and Marine Management (RIKZ) is responsible for monitoring the quality of marine and estuarine environments.

These reviews, and similar studies for agriculture and the economy, will be linked together in scenarios produced by the Central Economic Planning Office, one of the most important government advisory bodies. This will be an important step forward on the way to integrating biodiversity considerations into the wider economic and social

development of The Netherlands.

Clearing house for biodiversity information

The possibility of setting up a national clearing house for biodiversity information is currently being examined. This will include genetic information on old indigenous breeds and cultivars, standard fruit trees, and domesticated species. The European Environment Agency in Copenhagen is responsible for co-ordinating access to information at the European level.

10. Colofon

The National Report on Biological Diversity of The Netherlands is published by the Ministry of Agriculture, Nature Management and Fisheries

For further information:
Ministry of Agriculture, Nature Management and Fisheries
Department of Nature Management
P.O.Box 20401
2500 EK THE HAGUE
Tel.:+31 70 3786868, Fax:+31 70 3786146
The Hague, The Netherlands, October 1996

Text and co-ordination
Bart Romijn, Miranda Boland and Hugo Nijkamp, AIDEnvironment, Amsterdam

Translation
English: Derek Middleton, Zevenaar
French: Lyne Larochelle, Leiden