

Chapter 13

Information and public awareness

Man needs experience and recreation. Nature plays a central role in satisfying these needs.

Personal experiences in nature and knowledge and experience of the interaction between plants and animals and their physical surroundings are fundamental to man's understanding of nature. This also motivates man to assist in preserving biodiversity. An active population that has an interest in nature is probably Nature's best defence.

Authorities and organisations are becoming increasingly aware of the fact that information and the creation of satisfying frameworks in which to experience nature are important instruments in overall nature policy. Consideration for the population's opportunities for outdoor activities, nature experience and knowledge is receiving steadily increasing priority.

In the Ministry of Environment and Energy's areas, in counties and districts,

at museums and in the Danish Open Air Council's member organisations, higher priority has been given to the presentation of nature, through the employment of environmental interpreters, nature kindergartens, eco-schools and nature centres in recent years. The presentation of nature has, thus, become an integrated part of work on the areas in which people are employed on nature management and popular information; see Box 13.1.

The education sector also considers it important to introduce a „green“ bias into all subjects and educations.

Status of environmental education in Denmark

The primary purpose of environmental education is to give the population an increased understanding of the importance of protecting nature and the environment. We attempt to do this through direct experience and presentation of natural and environmental relationships.

Box 13.1

Article 13 of the Convention on Biological Diversity, 5 June 1992:

The Contracting Parties shall:

- (a) Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes; and
- (b) Cooperate, as appropriate, with other States and international organizations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity.

The presentation of the conditions of our primary industries, first and foremost agriculture, forestry and fisheries, and of culture-historical relationships is also an important area.

Environmental Interpreter Service

The Environmental Interpreter Service is based on the Danish tradition of popular education and nature activities in the relevant organisations. In order to support these initiatives, the Ministry of the Environment established the Environmental Interpreter Service in 1986, under which environmental interpreters were employed in the State forest districts, in counties and districts, as well as at museums and recreational nature centres. A programme of further training for environmental interpreters has also been developed and granted subsidies for experiments in rangership.

One of the environmental interpreter's most important tasks is to take people out into the countryside - and also in their more immediate surroundings - and draw their attention to its nature con-

tent. Direct presentation, personal experience and activities give an understanding and insight that cannot be attained through the media, such as television and books. The presentation of urban nature and ecology under the Environmental Interpreter Service have also been given priority in several places.

77 people are employed today in the institutions mentioned above. There are another 66, who are primarily teachers, biologists, educationalists, foresters, forest workers, etc., but whose work also entails a considerable amount of rangership. All 143 persons have completed, or are in the process of completing, the Danish Forest and Nature Agency's 3-year supplementary course in rangership.

This course, together with the environmental interpreters' association, seminars and regional cooperation, has made it possible to establish a network in which educational methods can be developed, that have already resulted in first class rangership.

Even though the environmental interpreter programme is aimed at the whole of society, children and families with children receive especially high priority. A large part of the environmental interpreter's time is, therefore, spent in rangership activities for schools, camp schools and kindergartens. Environmental interpreters are used as teachers on courses for teachers, educationalists, volunteers from associations and others who are engaged on environmental education as part of their everyday employment or leisure activities.

The interest for, and scope of, these activities is increasing steadily. The population already has an awareness of the Environmental Interpreter Service. According to a survey of 1993, 52% of all adult Danes are aware of the service. In 1993, over 8,000 arrangements were held, with more than 300,000 participants. Of these, 16% have participated in several arrangements. In addition, many activities are arranged by private organi-

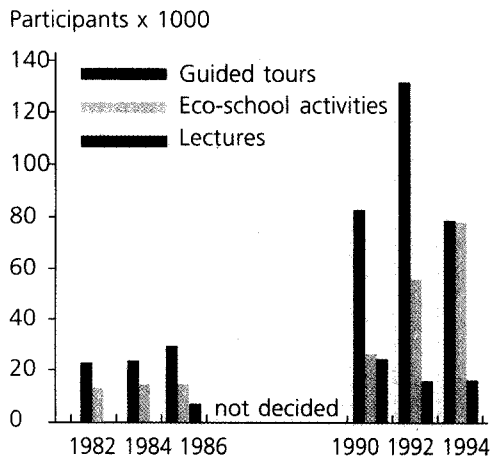


Fig. 13.2

Presentation of nature in our state forests.
(Source: Ministry of the Environment 1994e)

sations for their own members and for the general public; see Fig. 13.2.

Eco-schools, projects and courses

60 eco-schools, of which 27 are in the Ministry of Environment and Energy's areas and 33 are operated mainly by local councils in connection with other nature areas, have been established since 1972, in an effort to give our school children better opportunities to learn about nature outside the normal framework of schooling. The eco-schools in the Ministry of Environment and Energy's areas are established and operated in cooperation with one or more of the neighbouring local councils.

Eco-schools supplement the teaching of our primary and secondary schools, where teaching methods encourage the curiosity and desire for discovery of the children. This opens up opportunities for children to find stimulation for their interest and love of nature, which is a vital condition if our adults are to become involved in protecting it.

Eco-schools are one of several opportunities available to our schools' natural science teaching. The teaching sector has

been largely responsible for a large number of projects in the area of teaching on the environment. Several other organisations, including the Danish Open Air Council, have made major contributions on behalf of our school children, in the form of projects and courses, such as *Plant and Learn* and *Green Flag - Green School*.

Nature kindergartens

It is also important that children of below school age receive satisfying experiences of nature. Many forests are the daily point of departure for kindergartens, nature kindergartens and children's forest groups. Forest personnel help to find suitable areas and can, to a certain extent, make premises, etc., available and assist with inspiration and getting started. Kindergarten forest groups and nature kindergartens are often established on the initiative of parents and educationalists who take an interest in nature.

Nature centres

Nature centres have been established in many parts of the country in recent



Assembly in the woods

years, in part with funds granted for nature management pursuant to the Nature Protection Act and from the receipts from the State football pools. In particular, these centres house exhibitions on the local countryside and its content of nature types, plants and animals, cultural history and farming industry. Thus, they offer the public the opportunity of increasing their enjoyment of the local countryside.

Pamphlets for outdoor recreation

The Ministry of Environment and Energy and Denmark's counties produce a large number of pamphlets, with maps and suggestions for marked routes.

The Ministry of Environment and Energy's series of pamphlets, which first appeared in 1964, contain information on the unique aspects of our forests and other natural areas, as well as history of nature and cultural history, etc. They are in great demand and about 2 million of the (at present) 97 different pamphlets are distributed annually, free of charge.

Ministry of Environment and Energy publications

The Ministry of Environment and Energy issues a large number of publications, for all target groups, on subjects relating to nature protection.

Forthcoming efforts

Denmark has an established tradition of nature protection - a tradition that offers a firm foundation for presentation and teaching on biodiversity and the many interests that are linked to its preservation.

The educational goals of our future environmental education and teaching are to contribute to enhancing people's common sense, so that they are in a better position to adopt an attitude in questions of nature and the environment. This is to be achieved through personal experience of nature and programmes of information on nature and the environ-



ment. It is especially vital to strengthen the presentation of nature to children and families that have children, and methods of marketing and presentation must be developed that can reach people who find nature alien.

One task will be to integrate to a greater extent the presentation of urban nature and the Danish and global environments into our enjoyment of nature.

Subsidies for developing environmental interpretation

Subsidies for experiments in rangering (financed with nature management funds and receipts from the State football pools) will enable us to continue to launch projects and activities that can contribute to the continuing development of nature-presentation methods and the activities in which eco-schools and environmental interpreters participate and initiate. The development of courses on presentation will be given high priority, so that all who are involved in environ-

mental interpreter activities gain a more solid background against which they can include a broader range of aspects of the protection of nature and the environment in their presentations. The Ministry of Environment and Energy has established a nature-presentation workshop for a three-year period, subsidised from the proceeds of the State football pools.

Moreover, we will work for the closer integration of environmental education in tourism, local administration, the organisations of the Danish Open Air Council, primary and secondary schools, kindergartens, folk high schools, youth centres, etc.

Parliament adopted the Green Fund Act in 1994. The purpose of this act is to make possible economic support for activities that entail changes of lifestyle, with a view to reducing our consumption of resources and of paying more attention to nature and the environment. This also includes support for information activities, etc., that can encourage us to behave in an environmentally-oriented fashion.

Part of the receipts from the State football pools, which are administered by the Danish Open Air Council, goes to support outdoor-activity projects that focus on work on nature and the environment, including environmental education.

Environmental presentation in schools

It is important to lay a foundation of understanding for nature and the environment as early as possible. Since there is no sign that our residential pattern will change, most children will continue to grow up in cities and towns, with their concomitantly reduced potential for gaining insight into natural and environmental relationships, at any rate, outside urban areas.

The new Primary Education Act of 1994 contains the following section in its objects clause: *Primary schools shall fa-*

miliarise pupils with Danish culture and contribute to an understanding of man's interaction with nature. The Act introduces a new subject, *Nature and Technology*, into the school syllabus from the first to the sixth year.

Against this background, the Minister of Environment and Energy has taken the initiative in cooperation with the Ministry of Education and Research on, for instance, education on the environment and the adoption of a „green“ approach. With its long background of presenting nature experience and information on nature and the environment, the Ministry of Environment and Energy wishes to participate actively in the development of education on the environment, for instance, by offering to participate in the supplementary education of teachers.

More eco-schools, nature centres and increased information effort

The Ministry of Environment and Energy has the goal of contributing to the establishment of an additional 20 eco-schools in Denmark before 1998, so that the total number reaches 80. The eco-schools that are established in our State forest districts will continue cooperating with the Danish Open Air Council and interested local councils. The establishment of more eco-schools will make it possible to integrate to a greater extent the presentation of nature and the environment in the syllabus of our schools.

The Ministry of Environment and Energy will also continue to establish nature centres in order to heighten our awareness that nature must be protected and used in sustainable ways.

The individual State forest areas are in favour of cooperating on outdoor activities and environmental education, as well as making available relevant and exciting areas.

The use of other tools, such as radio, television, the daily press and target-oriented information aimed at the farm-



Environmental education

ing industry and decision makers, etc., must also be reinforced as a vital part of a heightened effort on behalf of an increased understanding of nature and the environment.

The responsibility of participating in the necessary, on-going debate is incumbent on every citizen and organisation. The public sector can stimulate and enhance this debate and, for instance, strengthen public understanding for the consideration necessary for the preservation of biodiversity.

Consumer councils in State forest areas

Denmark has a long tradition of engaging its population in the general effort on behalf of nature protection, e.g. through the special right of the Danish Society for Nature Preservation to initiate actions on conservation issues. The Danish

Society for Nature Preservation and local associations are entitled to make complaints relating to decisions pursuant to the Nature Protection Act.

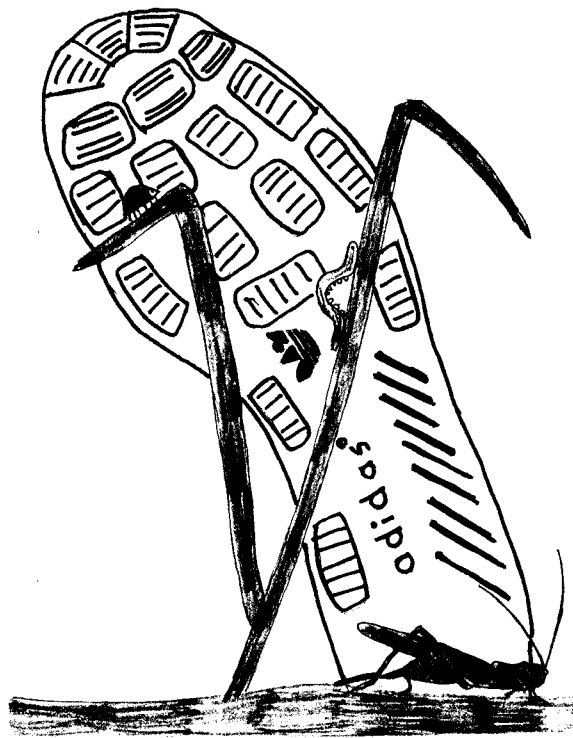
The Minister of Environment and Energy has decided that *user councils* shall be appointed in our State forest districts in order to give the population clearer insight and influence over how the Ministry of Environment and Energy's areas are used.

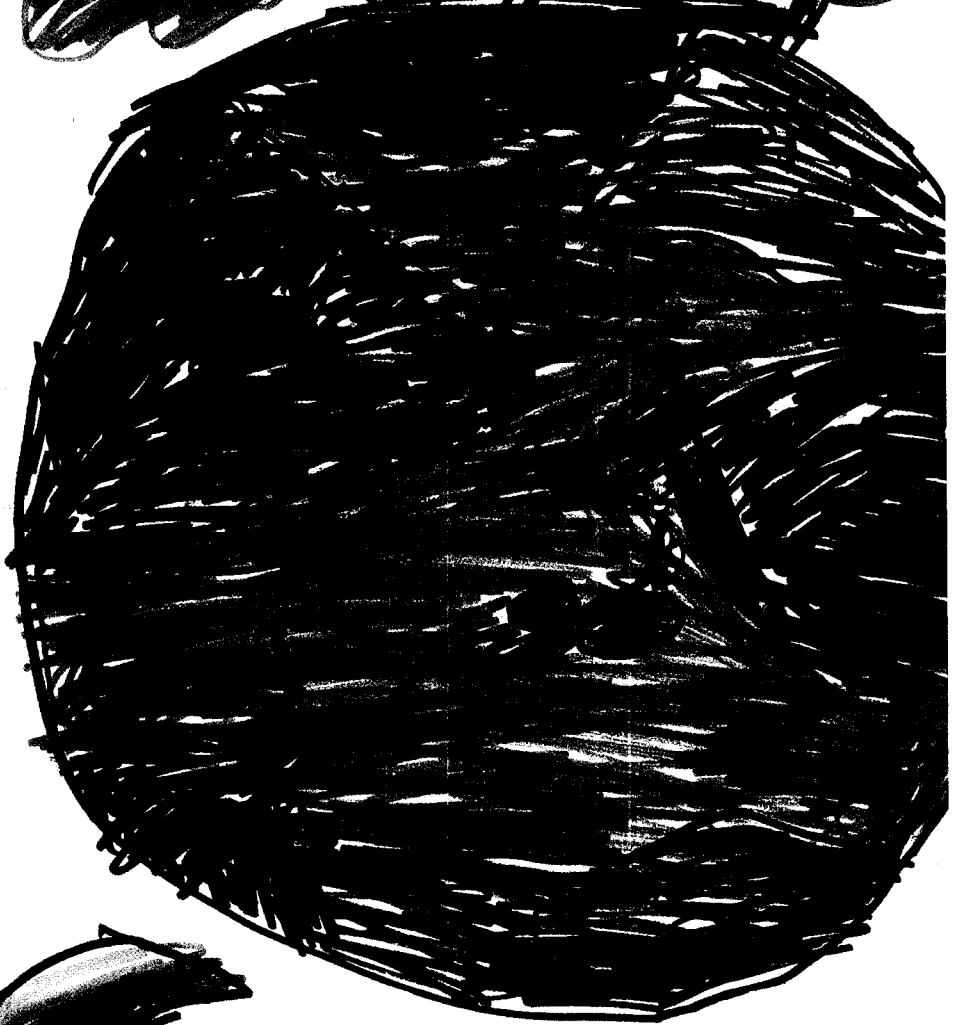
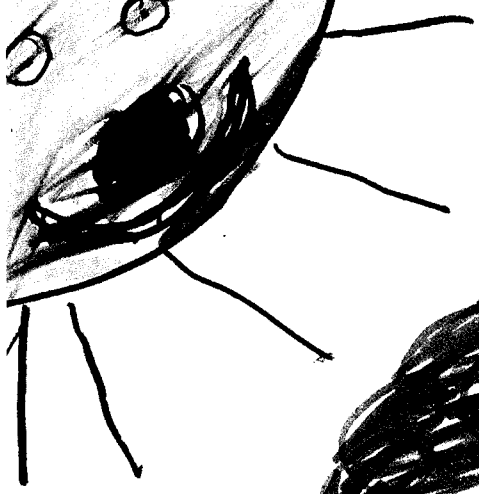
Danish names for animals

A necessary prerequisite for understanding the value of preserving biodiversity outside the circle of specialists is that our species have usable Danish names. In *Project Danish Animal Names*, work is in progress under the auspices of Danish post-graduate training colleges on proposing Danish names for our „nameless“ species of invertebrate.

Target areas

- Subsidising new methods of environmental education from nature management funds and the receipts from the State football pools.
- Developing methods of integrating local and global environmental problems in environmental education.
- Subsidising activities that entail changes of lifestyle towards a reduction of resource consumption and increased consideration for nature and the environment, with funds provided under the Green Fund Act.
- Developing the cooperation between the Ministry of Environment and Energy and the Ministry of Education and Research, with a view to reinforcing natural science and a „green“ bias in our teaching, for instance, through offers on the part of the Ministry of Environment and Energy of participation in the supplementary education of teachers.
- Increasing the number of eco-schools from 60, at present, to 80, before 1998.
- Hastening the expansion of the Environmental Interpreter Service, including the presentation of nature to children.
- Strengthening the programme of environmental education aimed at radio, television and the daily press, as well as target-oriented information aimed at the farming industry and decision makers.
- Appointing consumer councils in the state forest areas, in order to give the population greater influence over the use of the Ministry of Environment and Energy's areas.
- Appointing Danish names for invertebrate species.





Chapter 14

International efforts

As is the case other for many environmental problems, the loss of biodiversity is a problem that can only be resolved internationally. Recognition of this fact has had the effect that international cooperation on the protection of biodiversity is growing rapidly. Danish interest in international efforts has increased correspondingly.

International efforts can be roughly split into the following 3 main categories.

1. *Global environmental cooperation* - typically within the framework of the UN - in which the point of departure of Denmark's participation is less for the country's own advantage and more from a desire to share common responsibility for global biodiversity and to assist in bringing less developed parts of the world to a state in which they can also contribute. Experience shows that, through an active, goal-oriented effort coordinated with similarly disposed countries, Denmark can exert an influence on global cooperation that is far out of proportion to its size.

2. *Regional cooperation*, in which the results of cooperation are also of more direct benefit to biodiversity in Denmark and can, therefore, be considered to be an obvious part of our national effort.

3. *Bilateral cooperation*, in which efforts are concentrated in a specific area (Wadden Sea) or country, for instance, by entering into agreements with developing countries or East-European countries on providing technical and economic assistance for protecting biodiversity.

Global cooperation

Convention on Biological Diversity

The Convention on Biological Diversity, which is discussed in more detail in Chapter 1 and to which the EU is also a party is, with its holistic and developmental aims, epoch-making in the context of international nature protection. In many respects, however, the Convention is a broad framework convention, the success of which depends on the way in which it is followed up at the national and international levels.

Denmark has played an important role so far in originating the Convention and in following it up, in part because Denmark, especially in cooperation with the other Nordic countries, has *built bridges* between the industrialised world and developing countries. The conflicts of interest between the groups of countries have been quite explicit during negotiations on the Convention and are still unresolved in several areas.

Denmark will adhere to its active and constructive approach as it continues to follow up the Convention. In general, Denmark will work to ensure that the Convention is expressed as quickly and effectively as possible in specific initiatives for the benefit of conservation and sustainable use of biodiversity and for a more just distribution of the assets that are linked to it. One condition for this (which includes programmes of aid to the poorer countries, from the industrialised countries) is that the provisions of the Convention on economic aid to the developing countries begin to operate soon. This requires, for instance, that agreement be reached on the priorities of pro-

grammes and the selection criteria for the financing of biodiversity projects, as well as on the assigning of roles between the Conferences of the Parties to the Convention and the *Global Environmental Facility* (GEF) which, for the time being, is the institution that expresses the Convention's financial mechanisms in specific projects, etc. The first conference of the Parties to the Convention represents a major step towards unity on all these issues.

The Convention attaches great weight to national efforts, including the drafting of national strategies for the protection of biodiversity. One encouraging result of the Convention has been that many countries have started to draft their country studies of their biodiversity and/or national conservation strategies.

One of the salient points of the Convention is the provisions that state that genetic resources that are used in the production of pharmaceuticals or for plant breeding are under the sovereignty of the countries in which they occur, and that these countries can demand payment for use made of these resources by other countries. Denmark will work for the preparation under international auspices of guidelines on how individual countries - typically developing countries - can incorporate this principle into their national legislation. In this context, Denmark will also support efforts to increase the opportunities open to local and native populations to control and obtain economic gains from the genetic resources in their surroundings and of their knowledge thereon. This applies equally to wild resources and to domestic animals and cultivated plants.

According to the Convention, the Parties shall consider the need for a legally binding protocol under the Convention in the field of biotechnological safety. It is primarily the fear that the developing countries could become test areas for the biotechnological experiments of the industrialised countries that has led to the

desire for international regulation of this field. As has been the case so far, Denmark will continue to support the drafting of such a protocol, should the developing countries so desire. Under all circumstances, it is the Danish opinion that there is a need for a global instrument on the safe handling of biotechnology, at both the national level and in connection with transports that cross national borders.

The Convention, itself, and the work of following it up, perceive biodiversity to be to a great extent a resource, of which sustainable use shall therefore be made. Denmark will continue to support the principles of such access for utilisation but will also contribute to ensuring that weight still be attached to *traditional* conservation measures aimed at protecting endangered species and ecosystems - nature that cannot be valued in terms of its utilisation value.

Denmark's mandates to the Conferences of the Parties to the Convention will be determined as openly as possible and with the involvement of interested parties. The so-called "92-group", which represents Danish development and environmental organisations, has been represented in the Danish delegation to the international meetings.

An international advisory technological/technical/scientific committee has been appointed pursuant to the Convention. Denmark will work to enable this committee to issue competent specialist advice, which will be decisive in forthcoming work on material questions within the framework of the Convention.

The Ministry of Environment and Energy will communicate with Danish research institutes, which conduct research relevant to the Convention, with a view to ensuring that the results of such research can be used in the specialist follow-up of the Convention and also to endeavour to initiate or stimulate a high level of information and the exchange of information and results.

Other global nature protection agreements

There are other global nature protection conventions that also have the goal of conserving biodiversity. They include:

Washington Convention (CITES), which entered into force in 1975 and which regulates international trade with endangered plant and animal species. The EU is a party to this convention.

Ramsar Convention, which also entered into force in 1975 and which has the purpose of protecting wetlands, especially as the habitats of aquatic birds.

Bonn Convention, which entered into force in 1983 and which has the goal of protecting migratory wild animal species. The EU is a party to this convention; see Box 14.1.

Denmark will also continue its active

efforts on behalf of these conventions.

The UNESCO Convention of 1979, on the protection of the World's Cultural and Natural Heritage, is also of importance. Denmark contributes financially to this Convention and, in cooperation with the other Nordic countries, is proceeding with the task of getting Danish cultural and natural areas included on the Convention's list of *World Heritage of International Importance*.

Coordination between the Convention on Biological Diversity and other nature protection conventions

The old nature protection conventions mentioned above can be said to cover limited parts of the broad areas covered by the Convention on Biological Diversity.

Denmark will work to ensure that the

Box 14.1

Regional nature protection agreements under a global convention

According to the Bonn Convention on the Protection of Migratory Species of Wild Animals, the participating nations shall - apart from protecting the migratory species most in need of protection, which are stated on the Convention's List I - endeavour to enter into regional agreements on the species listed on List II. This list includes migratory species that are not actually threatened with extinction, but which are in need of protection across national borders. Denmark participates in the following such agreements:

Agreement on the Protection of Seals in the Wadden Sea, 16 October 1990.

Participants: Denmark, Holland and Germany.

Agreement on the Protection of Bats in Europe, 4 December 1991.

Participants as of 1 January 1995: Belgium, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Holland, Hungary, Ireland, Israel, Italy, Luxembourg, Norway,

Portugal, Spain and Sweden. (A number of European countries are expected to ratify this agreement soon.)

Agreement on the Protection of Small Whales in the North Sea and Baltic Sea, 19 August 1992.

Participants as of 1 January 1995: Belgium, Denmark, the European Union, Finland, France, Germany, Great Britain, Holland and Sweden. (Russia and the Baltic countries are expected to ratify this agreement soon.)

Source: Secretariat of the Bonn Convention.



Harvesters of coffee in Java

effort in progress within the global nature protection conventions is as well-coordinated as possible. This can be achieved, for instance, through the coordinating role assigned to the Convention on Biological Diversity in relation to the other conventions. The old conventions have only slender financial resources at their disposal. It is, therefore, vital that a scheme be established that ensures these conventions access to the (temporary) financial mechanisms of the Convention on Biological Diversity (GEF), as this would strengthen this convention in crucial areas. However, it is also of importance that such a scheme be, on the one hand, reasonably flexible and, on the other, that it be implemented within the frameworks of the other conventions, which fulfil targets and priorities, etc., in relation to the Convention on Biological Diversity.

Regional cooperation

Pan-European cooperation

The importance is increasing of international work on nature protection that embraces the whole of Europe and that takes place under the auspices of the Council of Europe ECE and UNEP. This is not least due to the change of regime

that has taken place in the Central and East European countries, where the new democratic governments have evinced great interest in entering into binding cooperation on nature protection. The framework of such cooperation is first and foremost the *Berne Convention* on the Protection of European Wildlife and Natural Habitats, to which several of the above countries have now acceded and to which the EU is also a party.

On Dutch-Hungarian initiative, a European nature protection conference was held in Maastricht in November 1993. This conference ended in a recommendation for the preparation of a *European Biodiversity and Landscape Strategy* and a *European Ecological Network (EECONET)*, which entails the designation of natural heartlands, buffer zones around them and ecological corridors between the heartlands. EECONET is also conceived as a communications network between states, institutions and persons in questions of relevance to nature management. The conference's recommendations were discussed at a conference of European Foreign Ministers in Sofia, in 1995.

Denmark will work to ensure that the recommendations of the Maastricht Conference are implemented and that they

supplement but do not overlap initiatives connected with the Berne Convention and EC Habitats Directive that are already in progress.

EU cooperation

Until the *EC Habitats Directive* was adopted in 1992, EU work on nature protection in a broad sense was of relatively limited scope. One exception, however, was the area of birds. The *EC Bird Protection Directive* was adopted in 1979. The EC Habitats Directive conforms largely to the Berne Convention, although the Directive assigns higher priority to the protection of habitats and, thanks to its wording and to the special character of EU cooperation, it is more binding on member states than is the Convention.

Belgium and Denmark are the only member states that have implemented the EC Bird Protection Directive satisfactorily. Denmark should continue to work to ensure that this Directive and the EC Habitats Directive are implemented at the most binding levels by all member states.

The loss of habitats for plants and animals is now so extensive in several EU countries that just the protection of remaining nature areas is insufficient. There is a need for *recreating* some of the earlier habitats for wild plants and animals.

The prospects of including arable land for nature restoration are favoured by trends in farming in the EU, which have meant that agriculture no longer needs all the marginal land that was previously included for agricultural production.

However, the EU has only very limited funds available for nature restoration. The financial instrument for this purpose is the LIFE scheme which in its present form is intended to support a very broad range of targets but, in reality, there has only been limited resources available for nature protection and nature restoration. In practice, the „nature money“ has been

used for different, more urgent, efforts to help nature areas and species.

Denmark will take the initiative in ensuring that nature protection efforts are promoted within the EU by working to ensure, for instance, that support funds are appropriated in conjunction with the revision of the LIFE scheme for a noticeably increased effort in the area of nature restoration.

With that aim Denmark in May 1995 held a conference on nature restoration in the European Union.

Baltic cooperation

International cooperation on the conservation of biodiversity in and around the Baltic Sea is conducted within the framework of the *Helsinki Convention* on protection of the marine environment in the Baltic Sea. The work in progress in this forum has gained increased importance as a result of the political changes that have occurred in a number of the countries that border the Baltic Sea.

Reduction of pollution across borders

International cooperation on the reduction of *air pollution* is conducted under the auspices of the ECE (the UN Economic Commission for Europe), within the framework of the Convention on Long-Range Transboundary Air Pollution. Protocols have been signed under this convention that restrict the discharge of SO₂, NO_x and VOC (Volatile Organic Compounds). Negotiations have been started over a protocol on the restriction of loading by airborne nitrogen. There is, moreover, a number of EU directives on the restriction of air pollution. The EU is also a party to the agreements under the auspices of the ECE, which have been mentioned above.

Cooperation on the restriction of marine pollution is being conducted under the *Helsinki Convention*, which covers the Baltic Sea, and under the *OSPAR Convention*, which is a combination of the former Oslo and Paris Conventions

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that covers the North-East Atlantic as far as the Kattegat, in the east. In addition, there is cooperation on the North Sea within the framework of the so-called *North Sea Conferences*, the decisions of which are not legally binding but which are regarded as *politically binding declarations of intent*. Denmark hosted the North-Sea Conference in 1995.

There is also a number of EU directives concerned with water pollution, of which the so-called *Nitrate Directive* is the most important.

Cooperation on both air and marine pollution have become more effective and have gained increased political significance in recent years. With active Danish backing, the precautionary principle and the principle of using the best available technology have been written into several of the agreements.

Nordic cooperation

Within the framework of the Nordic Council of Ministers, the committee of government officials on environmental matters is involved in a cooperation on nature monitoring, nature protection and outdoor activities. This task is primarily of an informative and coordinatory character. It is expected that a discussion paper on a common nature management strategy, *Problems and Opportunities in Nordic Nature Management*, will be approved by the committee and published in the "Tema Nord" series.

Bilateral cooperation

Wadden Sea cooperation

Denmark, Germany and Holland have participated since 1982 in increasingly intensive and binding cooperation on the Wadden Sea, which is shared by the three countries. The Wadden Sea cooperation is mentioned in Chapter 4.

Cooperation on aid

Denmark's programmes of aid to developing countries have included consideration for biodiversity and sustainable use

of nature resources to a very high degree. Parliament's decision in 1993, to increase environmental and catastrophe aid significantly, has made it possible to reinforce this effort still further, as the protection of biodiversity is one of the primary target areas of this increased aid. As far as the developing countries are concerned, this programme is aimed at South-East Asia during its first years. The Ministry of Environment and Energy signed an agreement in 1994 with the WWF (World Wildlife Fund), on Danish financing of projects intended to protect biodiversity in South-East Asia.

The increased aid appropriations for environmental and catastrophe purposes have also made it possible to strengthen environmental aid to the East and Central-European countries. Environmental aid to these countries has hitherto been largely concentrated on combatting pollution. Our future environmental aid programmes for East Europe will give more consideration to *soft* nature interests, i.e. programmes that have the direct goal of protecting biodiversity.

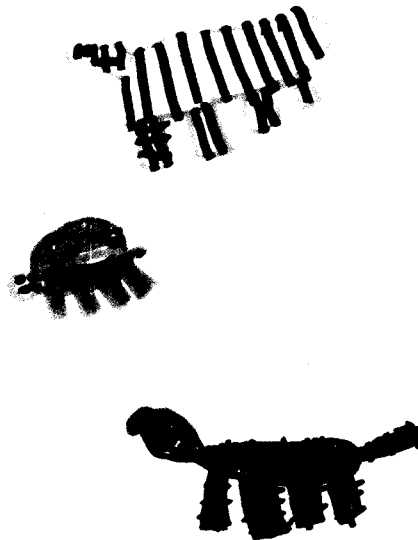
Target areas

Working to:

- ensure that the Convention on Biological Diversity is expressed as soon as possible in tangible initiatives for the benefit of the conservation and sustainable use of biodiversity, and for a more fair and equitable sharing of benefits associated therewith;
- ensure that aid granted under the Convention on Biological Diversity by the industrialised countries to the developing countries is used, for instance, for preparing national studies of, and national strategies for, the conservation of biodiversity;
- ensure that guidelines are drafted under international auspices on the ways in which individual countries, typically developing countries, can ensure that their national legislation fully incorporates the principles of the Convention, including principles on fair and equitable sharing of benefits gained from the use of these countries' genetic resources.
- Inviting cooperation with the research institutes that conduct research relevant to the Convention on Biological Diversity, with a view to ensuring that the results of such research can be used in the specialist following up of the Convention and also to endeavour to initiate or stimulate a high level of information and the exchange of information and results.
- Continuing to make an active contribution within the Washington, Ramsar and Bonn Conventions and working to ensure that the Convention on Biological Diversity receives a coordinating role in relation to these conventions.
- Supporting the recommendations of the European nature protection conference of Maastricht, to the effect that European biodiversity and landscape strategies, and a European ecological network (EECONET), be pre-

pared in the relevant international forums.

- Continuing to make an active contribution to nature protection in cooperation with our neighbours, within the frameworks of the trilateral Wadden Sea cooperation and the Nordic cooperation.
- Including consideration for biodiversity in aid programmes aimed at the developing countries, as well as in programmes within the expanded aid frameworks of environmental and catastrophe programmes and Danida programmes.
- Including greater consideration for biodiversity in the environmental support scheme for East and Central Europe.
- Promoting nature restoration efforts in the EU, by appropriating funds for a markedly increased investment in this area.





Chapter 15

Summary

Why Danish status and strategy?

This report fulfils from Denmark's standpoint Article 6 of the Convention on Biological Diversity, which states that countries shall prepare national strategies for protecting, and for the sustainable use of, biodiversity.

The object of this report is to clarify - in Denmark and in relation to the Conferences of the Parties to the Convention - the Danish Government's policy on the conservation and sustainable use of biodiversity.

The target areas indicated herein comprise a catalogue of the activities deemed necessary or appropriate and, as such, should obviously be assigned varying priority and assessed more closely, e.g. from the economic standpoint. This will be done in conjunction with the Government's strategic environmental planning.

Any status and strategy on biodiversity can be arranged in many ways. This report was arranged on the basis of the Convention's definition of biodiversity, as diversity at the ecosystem, species and gene levels. Each individual chapter on these topics contains a description of the problems, a status report on what has been done so far, the identification of future target areas and concludes with a list of these areas. A basically similar system has been used in the interdisciplinary chapters of this book, on the accumulation of scientific knowledge, information and understanding of nature, and on international efforts.

What is biodiversity and why should we conserve it?

Biodiversity is diversity at the ecosystem, species and gene levels. It is dynamic, and species are created and perish as part of the natural evolutionary process. In our era, however, human activity has been one of the most influential factors and has been the cause of a significant loss of biodiversity.

The grounds for reversing this trend are not merely of a moral and aesthetic nature. *It is necessary for mankind's own survival.* A high degree of biodiversity is a requisite for maintaining and increasing the productivity of agriculture, developing new disease-resistant crops and adapting agriculture to climatic changes or, in other words, for feeding the rapidly increasing number of people on this Earth.

The conservation of biodiversity presumes that methods be developed for the long-term management and sustainable use of biological resources at the levels of the ecosystem, species and gene. It is, thus, a matter of considerably wider scope than traditional nature protection of endangered species and nature types.

The biodiversity of Denmark has always been affected quite fundamentally by the impact of man. And so it will remain in the future. The pertinent question is not „if“, but „in what way and how much“ influence we should exert. Our goal should be *to preserve native plant and animal species in large, viable, wide-ranging populations.* The primary means of achieving this is *to organise our use of nature's resources in such a way that the loss of biodiversity is avoided in the fut-*

ure, and that the decline that has occurred can be reversed to the extent possible.

Biodiversity and the landscape

In the geological perspective, Denmark is a young country. Its landscape was mainly formed during the last of at least five ice ages. Denmark possesses four main types of landscape, i.e. *moraine landscape, landscape with dead ice surface, glacial meltwater landscape and the West Jutland landscape.*

Denmark is in a part of the world that does not contain great biodiversity. However, when all circumstances are considered, including the size of the country, its biodiversity is relatively large. This is due to the location of the country, in the transitional zone between the temperate coniferous region to the north, and the temperate deciduous region to the south, and between the mild winter of the Atlantic region and the more continental climate of the east. Within just short distances of each other, Denmark has a changing mosaic of ecosystems, each with its special assemblage of plants and animals.

The sea

Denmark's territorial waters are unique from the ecological standpoint. The Danish waters are in the transitional area between the salt water of the North Sea and the brackish Baltic Sea, and can therefore almost be said to constitute a large estuary. Danish territorial water and coasts boast some of Europe's largest occurrences of aquatic birds.

Pollution, especially through the discharge of nutrients, is the greatest threat to the biodiversity of our territorial waters. The National Environmental Research Institute has estimated that it will not be possible to attain the goals of the Action Plan on the Aquatic Environment unless additional action is taken to restrict the discharge of nutrient salts. Disturbances, in the form of outdoor activities, the extraction of raw materials,

construction works and fishing with dredging equipment are detrimental factors.

We must reinvigorate the battle against pollution, taking our point of departure in the precautionary principle, through preventive efforts in all sectors. Danish territorial waters primarily suffer the impact of pollution caused by the discharges of other countries, thus, international efforts to persuade other countries also to make preventive and sector-integrating efforts are also important.

There is a need for greater scientific knowledge of the sea's biodiversity, especially on the different ecosystems and nature types of the sea.

The large areas that have been dammed to gain agricultural land should be returned to the sea to a greater extent. We must also determine the extent to which actual nature restoration is needed in the sea, for instance, by the establishment of artificial stone reefs.

The coasts

Denmark is characterised by its coastline of over 7,000 km and by the number of its islands. Our coasts include some of the most original and dynamic nature in the country.

From the standpoint of nature, the Danish coastal zone is of international importance, for instance, because of the Wadden Sea and North-West Atlantic dune heaths. Many of the nature types that are characteristic of the coast have, however, been significantly affected or reduced as a result, for instance, of coastal protection, land reclamation, the cultivation of salt marshes and the wear and tear due to recreational use.

Many measures have been implemented in recent years to protect our coastal nature. For instance, the foreshore-protection and dune-protection lines of the Nature Protection Act have been amended, from 100 m to 300 m and by the introduction of a coastal proximity zone in the Planning Act. Finally, a number of

areas that are classified as strict protection areas have been specifically designated.

The efforts of the future will consist of increasing coastal dynamics through continuing to promote more nature-oriented methods of coastal protection. The nature restoration of salt marshes should be increased and a number of dune heaths should be recreated by clearing unproductive coniferous stands.

We should establish a better base of knowledge on biodiversity in the coastal zone and set goals for its condition and development in the individual nature types. Moreover, more information should be sent to the owners of summer cottages, on how to care for their plots so that they give the greatest possible consideration to our unique coastal nature.

Fresh waters

The status of the Danish lakes is no better than it was 10 to 15 years ago. Thus, our efforts so far have had only limited effects. Although there are no statistics available over the trend of the *number* of lakes, 20 large lakes were recreated during the period 1989 to 1994, with a total area of 900 ha. Smaller lakes and ponds have also been established under public and private auspices.

The most important and most endangered part of lake biodiversity is linked to the few remaining clean lakes, which can be found in forests and on heaths. We should make a goal-oriented effort here, to ensure that the condition of these lakes is not adversely affected.

Only about 3% of all Danish *watercourses* remain unaffected by various types of physical intervention. In many places, fauna barriers have drastically changed the wandering and ranging patterns of animals that live in and along our watercourses, and the watercourses are widely drying up as a result of water catchment in Zealand. However, a beneficial course of development has been started with the general protection of

watercourses, i.e. the introduction of a 2-metre no-cultivation zone, as well as a number of successful watercourse restoration projects and renewed emphasis on saving water.

For the sake of our lakes and watercourses, we should increase our efforts to reduce nutrient-salt pollution - first in the watercourses, because of their role as active transporters of such substances to lakes and the sea.

We should lay out uncultivated, or extensively cultivated, areas around our lakes and along our watercourses in order to create habitats and ecological corridors and to degrade nutrient salts from neighbouring intensively cultivated areas. Set-aside obligations and the subsidy scheme for environmentally-oriented farming methods of the EU Common Agricultural Policy (CAP) are appropriate instruments.

More lakes and ponds should be restored and we should increase our efforts to improve the physical condition of our watercourses, for instance, by returning them to a natural, winding course and by removing barriers. We should also promote more nature-oriented maintenance in privately-owned watercourses.

The open countryside

Ever since the introduction of farming into Denmark, agriculture has been the determining factor of the conditions of life of wild plants and animals on cultivated soil. Major structural changes that have occurred in the landscape, especially over the last 50 years, have resulted in an extensive loss of its biodiversity. The nature types and semi-culture nature types that characterised the Danish landscape prior to this have gone into a dramatic decline. In turn, this has led to major changes in the assemblage of wild plants and a decline in the population sizes of many of the animal species that are associated with the open countryside.

The draining of earlier wetlands through the watering and draining of

fields is a primary cause of this decline. Other contributory causes are the *homo-genisation of land use and intensification of farming*, as well as the increased use of fertilisers and pesticides.

In combination with structural developments in farming, the various tools that we have developed appear to have halted the radical reduction of biodiversity that has been taking place since the 1950s - a trend that should be maintained and fostered.

As more land is marginalised, the farmer should increasingly become a *nature manager* and receive payment for the benefit that he thus brings to the environment and which society is increasingly demanding. We should extend our programme of the information aimed at farmers, on their role as nature managers.

This programme must be increasingly aimed at whole landscapes and at the establishment of ecological networks, in an effective interaction between the different tools and the authorities who administer them.

After it has become possible to transfer the set-aside obligation to environmentally-sensitive areas, *the obligatory set-aside scheme* of the EU CAP should be used to benefit environmental and nature conditions. The Government will work to ensure that the set-aside scheme can be used with greater flexibility and in a more environmentally-oriented manner.

We will attempt to promote *organic farming* by encouraging increased purchasing of organically-farmed products on the part of the public authorities. Moreover, the Ministry of Environment and Energy will investigate the possibilities of increasing the application of ecological principles in the cultivation of land areas owned by the State.

We should increase our nature-restoration efforts, not least in our wetlands. Nature restoration can thereby become a means of reducing the input of agricultural nitrogen into the aquatic environ-

ment. One specific target is to increase the area of our lakes and watercourses, from 65,000 ha to 95,000 ha over about the next 30 years.

The forests

Denmark was originally a forested country. Although our forests had almost vanished 200 years ago, target-oriented efforts have increased our forest area so that they now constitute about 10% of the country's area. Today, there remains less than 1% of original, natural forest.

Modern intensive forestry has had a detrimental effect on biodiversity, in part through the increase in the number of stands of coniferous trees.

A number of initiatives have been launched in recent years, which have opened up opportunities for protecting and increasing the biodiversity of our forests.

The *Strategy for Sustainable Forestry* was published in 1994. This strategy makes Denmark the first country in the world to establish specific criteria for how its forests can be operated in a sustainable manner. The primary goal is that all areas in all forests shall be operated in as multi-faceted a manner as is possible, which means that trees shall be produced while consideration is given to biodiversity. Taking our point of departure in the Marginal Land Strategy, we have set the goal of doubling our forested area over the next 80 to 100 years and, in the short term, of increasing our forested area by 150,000 ha within 30 years.

The Ministry of Environment and Energy has launched *Project Green Forestry*, the purpose of which is to promote more varied forest operation, with a larger proportion of deciduous trees in State forests.

We have also launched our *Natural Forest Strategy*, one goal of which is to conserve the biodiversity that is associated with the forests. Apart from safeguarding oak coppices, grazing forests,

coppice forests and forests similar to virgin forests in State forest areas, it is a goal that we attain 40,000 ha (corresponding to 10% of the area of our present forests, which comprise natural forests, untouched forests and old forms of operation) by the year 2040. A total of 8,500 ha of forest, corresponding to 8% of our State-owned forests, were designated in 1993 as forests that are to left untouched or operated only using old forms of forestry.

The urban areas

The biodiversity of our urban areas has not received much attention in the context of nature protection so far. But it is nonetheless worthy of conservation.

In the first place, the wild plants and animals of our urban areas constitute the daily contact with nature of the 85% of the Danish population that lives in our towns and cities. In the second place, the urban landscape contains its own peculiar biodiversity, with species that have succeeded in adapting to urban conditions.

An advisory committee on urban ecology, which was appointed by the Minister of Environment and Energy, issued a report entitled *Urban-ecological Recommendations* in 1994. In this report, the committee recommends that the Environmental Interpreter Service be continued and expanded in urban areas and that nature restoration projects also be carried out within urban limits. Taking its point of departure in this report, Parliament adopted the *Green Fund Act* in 1994. This fund makes it possible to finance a wide range of projects that promote a „green“ lifestyle, including urban ecology.

Consideration for biodiversity should be included to a greater extent in planning and public administration. „Wild corners,“ in which natural processes can proceed freely, should be established, for instance, in parks. We should also consider the possibility of local composting

in connection with these „corners“. Active efforts should be made on behalf of wild plants and animals, e.g. through the establishment of fauna passages, ecological corridors, watering places, nesting places, etc., and we should create still more green open spaces.

The quality of the air can be improved by planting more trees in towns and by re-organising vehicular traffic into rail traffic, at the same time as we reinforce public transport through the re-introduction of electrically-powered forms of traffic on our streets. We should maintain our current efforts to introduce cleaner technology in industry for the sake of improving air quality.

On the whole, the conservation and reinforcement of urban biodiversity will be an important element in the contemplated supplementation of our present planning instruments by *local Agenda 21 groups*, i.e. strategies for how the Agenda 21 action plan of the Rio Convention can be implemented in the local environment.

Species

Species can only be conserved if their habitats are conserved - if necessary, by legal protection. Species conservation orders and other measures that are connected more or less directly to the conservation of species are only supplements, if special conservation considerations are associated with a species.

Unfortunately, such supplementary measures have proved to be extremely necessary. Over 3,000 species are considered to require special protection and have, therefore, been included on the latest Red Data Book (1991). 70 species of plant, all 19 species of reptile and amphibian and 13 invertebrates are conserved.

Even if the number of species is fairly constant, the assemblage of species has changed over the course of time due to the immigration of new species and, in the case of many species, there have been sharp declines in populations and

numbers of individuals.

Alien plants and animals that have been introduced into Denmark can be so viable and dominant that they can threaten the existence of native species. For this reason, the Nature Protection Act prohibits the release of alien animals without permission and also gives authority for regulation in this respect as far as plants are concerned.

The *accumulation of scientific knowledge* through monitoring is crucial in the context of the management and protection of species and it should be strengthened. In this connection, Denmark's official list of endangered species, the *Red Data Book*, should be revised every 5 years. Moreover, we should prepare *species management plans* for all plant and animal groups.

The *invertebrates* form the group that has the greatest number of species and, therefore, forms the food basis for animals higher up in the food chain. Nonetheless, this group normally receives little attention in our nature protection efforts. There is an urgent need for increased monitoring and acquisition of knowledge on invertebrates and for the development of methods/tools for safeguarding these species.

As Denmark is passed by many migratory species, especially birds, international protection programmes are important, including bilateral cooperation with the receiver countries of Danish migratory birds.

Genetic diversity

Genetic (hereditary) diversity is the basic requirement of the ability of plants and animals to adapt themselves to changed living conditions. The larger a population, and therefore its variation, the greater the chance that it possesses hereditary characteristics that can ensure its continued adaptation. Genetic diversity is also the basic requirement of the breeding of crop plants and domestic animals.

The primary cause of the genetic impoverishment that has taken place in nature is the isolation of habitats and, consequently, of populations of species. Many plants and animals today are only extant in a few, very limited, populations, which are genetically isolated from each other.

The task of conserving genetic resources is proceeding in natural habitats (*in situ*) and in botanical and zoological gardens, arboreta, gene banks, etc. (*ex situ*). *In situ* conservation is therefore the main strategy of nature management, whereas *ex situ* conservation is a necessary, secondary approach.

In the same way that species protection is a supplement to the protection of habitats, genetic-resource protection is decidedly a supplement to both habitat and species protection. Ecological landscape planning, with the establishment of ecological corridors that can counteract the division of populations, is a key element in the protection of genetic diversity. If the general-purpose tools of our legislation, including nature protection, are insufficient we should start to conserve specific areas in order to safeguard the genetic diversity of plants and animals.

Populations of some of the old Danish domestic-animal strains are small. The conservation of these strains is of culture-historical significance and of significance to agriculture's breeding of domestic animals. The contributions of a number of private keepers of domestic animals should be supplemented by a major effort under public auspices.

The Ministry of Environment and Energy has published a *Strategy for Conservation of the Genetic Resources of Trees and Bushes in Denmark*. This strategy indicates about 1,800 gene conservation populations that include 75 Danish species. The Ministry of Environment and Energy has started to prepare a *Strategy for Conservation of the Genetic Resources of Wild Herbs*, the purpose of which is to

ensure a reasonable relationship between conservation of the genetic resources of the herbs that occur in nature and the need to produce and use Danish plants and seeds here in Denmark.

The plant and animal species that have been close to extinction can be saved through re-introduction. It is important that our present restrictive practice be maintained and applied to ensure that re-introduction, when deemed acceptable, be carried out with individuals that are related to the original population.

We should consider the appointment of a specialist advisory committee, which can draft guidelines for the preservation of biodiversity at the gene level, provide input to the necessary research effort and advise the authorities in specific cases.

Genetic modification holds aspects both beneficial and detrimental to man and the environment. It is, however, difficult in many cases to predict how the interaction between a genetically modified organism and the environment will proceed in the short and long terms. Denmark should work within the EU for the continued maintenance of a high level of security, for the launching of research projects and for reports on the effects of releasing genetically modified organisms.

Accumulation of scientific knowledge

The foundation of improved opportunities for conserving Danish biodiversity is a constantly expanding knowledge of the range and condition of our strains, species and nature types.

We need to reinforce the accumulation of scientific knowledge on the dynamics of our terrestrial and aquatic ecosystems. While we have gradually gained a satisfactory overview of the soil loading that results from pollution, we have only a limited knowledge of the significance of the condition of the environment and our use of land to our individual species and to the assemblage of flora and fauna in our ecosystems.

The Ministry of Environment and Energy has prepared a nation-wide programme of nature monitoring for the period 1987-1996. The Ministry of Environment and Energy also cooperates increasingly with other ministries, institutes of higher education, organisations and associations, on the overall nation-wide accumulation of knowledge to the benefit of biodiversity.

It is impossible in practice to undertake a thorough investigation of the overall biodiversity of an ecosystem. It is, therefore, vital that we develop a system of biodiversity *indicators* that is suitable for use under Danish conditions. Indicators of genetic diversity are needed particularly urgently.

There is a need for better coordination of the nature monitoring effort between the Ministry of Environment and Energy, counties and other involved parties. There is also a need for expanding the scope of cooperation between the Ministry of Environment and Energy and related areas of research at the sectoral research institutes and universities, in connection with the accumulation of scientific knowledge in the area of natural resources. Finally, there is a need for increased cooperation between our research institutes that are subordinate to other ministries - the Ministry of Agriculture and Fisheries, the Ministry of Education and Research.

The Ministry of Environment and Energy will present an overall analysis, named *Nature 2000*, of the knowledge requirements of nature management in the coming years.

Information and public awareness

A knowledge of, and interest for, nature and its relationships is necessary if we are to conserve them successfully. Denmark has a good tradition of public education - also in the case of nature and the environment.

The Environmental Interpreter Service, which was started in 1987, has been

a great success. The Ministry of Environment and Energy wishes, therefore, to strengthen this scheme as popular interest in it increases. Projects that can contribute to the continuous development of methods of nature presentation will continue to be launched through the subsidisation of experiments in rangering financed with nature management funds. A major programme of nature presentation will be carried out under the auspices of the Danish Open Air Council.

The foundations of nature comprehension should be laid as early as possible. Man's interaction with Nature is included in the objects clause of the new Primary Education Act. The Ministry of Environment and Energy and the Ministry of Education and Research are cooperating on developing the future environment syllabus of our schooling system.

The Ministry of Environment and Energy will endeavour to establish another 20 *eco-schools* before 1998, thereby bringing the total number up to 80.

The Ministry of Environment and Energy will appoint consumer councils for the State forest districts in order to give the population greater influence over the use of the Ministry's areas.

International efforts

The loss of biodiversity is an international problem that has led to increased international cooperation.

Together with the other Nordic countries, Denmark has played a significant part in the origination of the Convention on Biological Diversity and in following it up to date. Denmark will maintain its active and constructive course in future following-up of the Convention. The attachment of weight by the Convention to the *utilisation aspects* of biodiversity is extremely well-founded. Denmark will also, however, work to ensure that weight continues to be attached to *traditional nature conservation measures* with a view to protecting endangered species

and ecosystems - nature that cannot be valued in terms of its utilisation value.

Denmark will also continue to make active contributions within the other nature protection conventions, i.e. the Washington, Ramsar and Bonn Conventions, and to work to ensure that the Convention on Biological Diversity receives a coordinating role in relation to these older conventions.

Denmark will work to promote the Berne Convention and to ensure that we continue along the constructive and beneficial course of development that *European* protection cooperation is now following, as a result of the increased will to cooperate and increased engagement of the Central and East European countries.

Denmark will work within the EU for the appropriation of more funds for *nature restoration*.

In conformity with the purpose of the expanded framework of aid for environmental and catastrophe programmes, Denmark will assign higher priority to considerations of biodiversity in its aid programmes. The programmes for which the Ministry of Environment and Energy has the main responsibility are initially concentrated in South-East Asia and South Africa. Greater weight should be attached to consideration for biodiversity in our future programmes for Central and East Europe under the environmental support scheme.

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An aerial photograph of a large, light blue lake in the background, with a winding river in the foreground. The river flows through a lush green landscape with fields and a forested area. The sky is clear and blue.

Action Plan for
Biodiversity and
Nature Conservation
in Denmark
2004-2009

Action Plan for Biodiversity and Nature Conservation in Denmark 2004-2009

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Preface

This Action Plan presents the Danish Government's proposals for future efforts to preserve and safeguard the further development of biological diversity in Denmark. The Government's objective is to ensure that the loss of biodiversity is stopped by 2010. This presents a great challenge and requires targeted efforts within many different areas. The purpose of this Action Plan is to serve as a framework for these efforts. It has been the Government's wish that relevant ministries provide their own description of future initiatives within their specific area. Therefore, this Action Plan gives the first overall description of the many activities to protect nature and biodiversity that will be carried out in the years to come.

Results have already been achieved. The decline in natural areas has stopped. Gross pollution is today rare. The air is cleaner, and numerous dangerous toxins are no longer used in Denmark. And nature is repaying us. The population of deer is on the rise, birds are returning to Denmark, and rare species of orchids, tree frogs, and freshwater insects are thriving more than ever. Nevertheless, great challenges still lie ahead. Modern Denmark is densely populated. We consume vast resources, and our impact on the environment is substantial.

Some of the most significant results the Government has already achieved include: work on the establishment of national parks, the adoption of a national forest programme, and the designation of natural sites with international importance in the form of 254 habitat areas and three new, large offshore bird protection areas. But these will not stand alone. In January 2004 the Government presented a proposal for amendments to the Danish Nature Protection Act and a proposal for a new Danish Forest Act, closely related to the targets set out in this Action Plan.

The basic idea behind the Action Plan is to invest resources in Denmark's most valuable natural areas and to ensure we get our money's worth in terms of more nature. Emphasis is on areas and activities where Denmark is already committed to future efforts under international agreements and EU Regulations.

The Action Plan was considered in a public hearing in autumn 2003. During this process a number of comments were received, which have been included in the text. Other comments on prioritisation of efforts and on the use of resources will be considered in connection with the further implementation of the Plan.

The Government will set up an inter-ministerial working group, which will monitor the Action Plan, lay down targeted indicators showing the overall development in the main areas of biological diversity, and organise a mid-term evaluation with a view to possible adjustments of the further implementation of the Plan up to 2010.

The Danish Government



1

Summary

1 Summary

This Action Plan is the Government's framework plan for Danish initiatives to protect nature and biodiversity in accordance with EU decisions and the Convention on Biological Diversity.

The Action Plan is founded on the principle of investing Danish resources where they will lead to more and better nature. In the years to come, efforts will concentrate on the most important natural areas and activities to which Denmark is especially committed.

The Action Plan presents the following priorities for future initiatives:

- Danish NATURA 2000 sites (254 EC habitat areas and 112 EC bird protection areas).
- Existing natural areas outside NATURA 2000 sites.
- New small biotopes and semi-natural areas within habitat and bird protection areas.
- New small biotopes and semi-natural areas outside habitat and bird protection areas.

The Action Plan places great emphasis on the importance of sector integration. Consideration for the environment must be integrated into all sectors of society in order to achieve sustainable development. The following sectors are especially important: agriculture, fisheries, industry, transport, and education. The management of publicly-owned areas is also important.

Denmark is currently implementing seven national park projects as a step towards the goal of curbing the loss of biodiversity by 2010. These pilot projects will be completed with a report before 1 July 2005. The report will describe visions, content and limitations of possible national parks in Denmark. Analyses of nature, recreation and cultural elements will be carried out and micro and macro-economic consequences examined.

The Environmental Targets Act (Lov om Miljømål etc.) adopted at the end of 2003 coordinates efforts within water and nature planning with a view to establishing greater correspondence between the quality of nature and Danish water resources. Proposals for revision of the Danish Nature Protection Act and the Danish Forest Act, e.g. as follow-up to this Action Plan, were recently presented to the Danish Parliament.

The Action Plan for the Aquatic Environment III, launched by the Government in April 2004, will continue the positive development initiated by the first two plans. The aquatic environment must be further improved through reduced discharges of nitrogen and phosphorus, and special attention is given to nature management through crop-free buffer zones along lakes and watercourses. Another initiative is 300 m protection zones around the most important nature areas, where livestock farms must not be established or extended.

Spatial planning by counties and municipalities constitutes an important tool in the conservation and restoration of biodiversity. Danish nature planning will be improved so as to make it more suitable for setting priorities for nature conservation and restoration.

The Government will produce concrete initiatives for the conservation of a number of special natural habitats such as nutrient-poor heaths, water meadows, dry grassland, and clearwater lakes. Similarly, management plans will be prepared for special and rare species, and species towards which Denmark is especially committed.

Danish people and businesses making a living from nature must be involved in the management and implementation of this Action Plan.

An inter-disciplinary working group will follow developments and lay down indicators to measure the Plan, as well as contribute proposals for a 2006/7 mid-term evaluation.

The overall objective of Danish development and environmental assistance is to combat poverty, but Danish assistance should at the same time contribute directly to reducing the loss of biodiversity. DANIDA (Danish International Development Assistance) channels significant resources into projects aiming, for instance, at nature and biodiversity enhancement.





Introduction



Introduction

Nature and the ecosystems are vital to all life on Earth. Therefore, Denmark must ensure viable and varied natural resources, both for present and future generations. We must safeguard biological diversity and protect unique and irreplaceable natural assets.

The Danish Government is presenting this overall Action Plan for the conservation of biodiversity as follow-up to the National Strategy for Sustainable Development and a number of international decisions. The objective is to ensure that loss of Danish biodiversity is stopped by 2010. The Action Plan will target efforts to preserve and restore nature. An important measure will include integrating considerations of biodiversity into the relevant sector policies and activities.

The Action Plan has been prepared by an inter-ministerial working group with participants from the following ministries: the Ministry of the Environment, the Ministry of Food, Agriculture and Fisheries, the Ministry of Defence, the Ministry of Transport, the Ministry of Economic and Business Affairs, the Ministry of Cultural Affairs and Communications, the Ministry of Education, the Ministry of Justice, the Ministry of Foreign Affairs, and the Ministry of Ecclesiastical Affairs. Annex A lists the functions discharged by the sector ministries. In a background report from the Ministry of the Environment dated October 2003 (on the Danish Forest and Nature Agency website) the contributions from the ministries are presented.

In June 2002, the Government presented Denmark's National Strategy for Sustainable Development, "A shared future – balanced development", with targets and principles for sustainable development. One objective of the Strategy is to secure a high degree of biodiversity and preserve Denmark's ecosystems.

The Strategy was subsequently presented at the World Summit on Sustainable Development in South Africa in August 2002. But the objective to stop the loss of biodiversity is also an integral part of a number of other international contexts which Denmark is part of, for instance, targets laid down by the EU heads of state and government in Gothenburg in 2001, and in the EU's Sixth Environment Action Programme. Moreover, Denmark has committed itself internationally to safeguarding biodiversity through a number of international agreements, not the least when ratifying the Convention on Biological Diversity from 1992 and through cooperation within the EU. In addition, we have a moral duty to prevent species and natural habitats, which have developed over thousands of years, from disappearing due to poor management over a few decades.

The Action Plan is based on further development of well-proven activities, but also points in new directions. It is a framework plan for the overall initiatives the Government will instigate in order to safeguard biodiversity and preserve nature. The Action Plan is not an isolated effort; it should be seen in context with the many nature and environmental initiatives being carried out by several Danish ministries. The Convention on Biological Diversity

also covers farm animals and utility crop. Therefore, the Action Plan should also be viewed in context with other strategies and action plans regarding farm animal genetic and plant genetic resources that the Government has already presented or will put forward sometime during 2004.

Successful implementation of the Action Plan is not only the responsibility of legislators and the authorities. Fulfilment of the objectives requires broad public support and mutual efforts from many different groups in society. It will require commitment and positive contributions from industry. This includes not only agriculture and fisheries, which directly impact nature, but also all other sectors, which, one way or another, depend on and influence nature.

In Denmark, we do not have impenetrable tropical rain forests with examples of some of the richest biodiversity on Earth. Moreover, Denmark's geographical characteristics do not include far-stretching savannahs, homes for rhinos and large flocks of other endangered mammals. Neither do they include colourful coral reefs and exotic fish. Nevertheless, Denmark is home for many species and types of nature of European and international significance. This includes, not the least, our shallow-water marine areas and the plant and animal life living in the 7,600 km of Danish coastline. And on land, we have important and rare natural areas, such as the dune heaths along the west coast of Jutland.

In an international perspective, Denmark is important to biodiversity due to its geographical location between north and south, and between the salt water of the North Sea and the brackish water of the Baltic Sea. During the winter season, the Jutland Wadden Sea, the shallow areas of the Danish waters and the wetlands are home for waterfowl from Scandinavia and large parts of Russia. In springtime, millions of migrating birds arrive in Denmark to breed or forage on their way north. Biodiversity in Denmark is therefore an international responsibility and common property. With the view to preserving Denmark's natural areas of international importance, the Government has designated 254 EC habitat areas and 112 EC bird protection areas (the so-called NATURA 2000 sites).



Initiatives to halt the decline in biodiversity before 2010 must be as resource efficient as possible. The Action Plan therefore lays down clear priorities for future efforts:

- 1st priority: Existing natural areas, including small biotopes and semi-natural areas (section 3 areas) within NATURA 2000 sites and national parks.
- 2nd priority: Other existing natural areas, including small biotopes and semi-natural areas (section 3 areas) outside NATURA 2000 sites and national parks.
- 3rd priority: New small biotopes and semi-natural areas within NATURA 2000 sites and national parks.
- 4th priority: New small biotopes and semi-natural areas outside NATURA 2000 sites etc. linked ecologically with other natural areas.

Cooperation with other countries with which we share ecosystems helps give us the most cost-effective solution for society when achieving biodiversity objectives. This applies to work within the NATURA network and, at broader European level, within the Pan-European Ecological Network. Denmark will work to encourage the rest of the world to employ Europe's idea of networks of protected sites.

Based i.a. on socio-economic analyses, the Government will carry out targeted measures to stop the decline of biodiversity by 2010, in accordance with the objectives of the EU and

the Danish Government. Measures will be directed towards areas where the benefits achieved are greatest, and where improvements can also be achieved with respect to outdoor recreational activities, groundwater quality and reduction of emissions of CO₂, resulting in overall economic benefits to society.

Prioritisation of efforts in the years to come will include analyses relating to: management of meadows, dry grassland, heaths and marshland; conversion of 100,000 ha of intensively cultivated areas with shallow depth of soil into riparian meadows; and establishment of buffer zones around nature areas that are particularly sensitive to deposition of airborne nitrogen compounds. Analyses have been made to assess the value of afforestation. The projects show that all in all, appropriate location of afforestation projects will yield an overall economic benefit to society.

As part of the implementation of the Action Plan, future efforts will also include optimisation of resource consumption through the establishment of new, economic partnerships. This will help break old habits. It is important that we involve more people in the work, and that we allow ourselves to be inspired by countries where the private sector is involved in, and carries out important tasks in this field.

The Action Plan will help secure that Denmark maintains and encourages efforts to preserve biodiversity; a positive trend, which is already beginning to show. In areas where biodiversity is still in decline, the Action Plan will contribute to curbing the negative development. The Action Plan is Denmark's contribution to preserving global biodiversity and it represents our contribution to making sure that our children and our children's children and grandchildren may experience varied Danish fauna and flora.





Why an action plan?

3 Why an action plan?

Efforts are working, but more are needed

Concrete and positive effects of initiatives carried out within the last 25-30 years can be discerned today.

Most of the 20th century saw a drastic decline in the total area of natural habitats such as heaths, coastal meadows, freshwater meadows, water holes, shallow lakes and fjords, and other wetland areas. Today, this trend has been curbed, but in many places the quality of natural areas is still deteriorating, not least due to continued pollution from nutrients. In the last decade numerous lakes, streams, and wetlands have been restored in Denmark. Watercourses that had been straightened have been re-established as meandering streams; obstructions of watercourses have been removed; the total area of forest is increasing, slowly but steadily; and large numbers of game reserves and international nature conservation areas are being established.

Pollution, which was a visible fact just 20 years ago in almost all watercourses, lakes, and fjords in Denmark, has become far more rare. The quality of Danish fresh waters has been improved, which has given us clearer lakes and caused the return of stone flies and other water insects to the streams and watercourses where pollution previously threatened their existence. Over the years, management of fish stocks has contributed to re-establishing fish stocks in Danish fresh waters. Previous initiatives primarily concentrated on release of fish; a type of initiative, which is often characterised as reactive rather than proactive. Today, there is more emphasis on creating better conditions for growth through watercourse and lake restoration.

Just 25 years ago, acidification caused by atmospheric sulphur dioxide pollution threatened the biological life in a number of Denmark's clearwater lakes. Today, Danish flora and fauna are no longer threatened by acidification, and the health of Danish tree species has been improved. On the one hand, contamination with chlorinated hydrocarbons, such as DDT and PCB, and mercury has been significantly reduced. But on the other hand, a number of new substances, suspected of having negative impacts on the environment, have become a problem.

Bans against a number of dangerous toxins, the designation of protected sites, hunting regulations, and nature restoration projects have helped many of Denmark's largest and most endangered species of bird, such as the white-tailed eagle, the peregrine falcon, the common crane, the Eurasian spoonbill, and the corn crake. These birds are now returning to breed in Denmark. Several of Denmark's largest mammals, for example, roe deer and elk, are also increasing in population. The otter is slowly becoming widespread in Jutland, and this year, for the first time in many years, the grey seal has been breeding successfully in Danish waters.

These and many other positive examples prove that our efforts are working.

Other areas, however, still present sweeping challenges. Botanists assess that one third of Denmark's wild plant species is on the verge of disappearing, and that the number of butterflies in the Danish landscape is gradually falling. The black grouse disappeared from Jutland in 1998-99, and no stork chicks have been bred in Denmark since 2000. Some of the more substantial reasons for the negative trend include additions of nutrients to the land and sea, and discontinuation of extensive farming. However, other factors also play a part, for instance traffic, energy, industry and households.

Well-functioning ecosystems require plenty of space and stable conditions. Conservation of biological diversity is about securing well-functioning ecosystems and protecting plant and animal species. Healthy and resilient ecosystems are fundamental to biodiversity and a prerequisite for preserving a number of the positive natural processes, which are vital for production in agriculture, forestry, and the fisheries industry. The lack of well-functioning water cycles, a stable climate, secured pollination of utility crops, and fish stocks able to reproduce, will cause problems for even the most modern of societies. Safeguarding biodiversity is therefore a necessary step in achieving sustainable development. The preservation of diverse and varied landscapes is central when safeguarding ecosystems. They are essential for variety of plants, animals, insects, microorganisms, and their genetic variants, which in turn creates resilient ecosystems.

Denmark is intensely cultivated, which is why the proportional area of natural landscape and marine culture is relatively small compared to other countries. Open natural habitats such as dunes, heaths, coastal meadows, and marshes cover around 9 per cent of Denmark.

Since the beginning of the 19th century, the area of forest in Denmark has increased from 2-4 per cent to approximately 11 per cent. However, the area of original forest, especially valuable to biodiversity, has been reduced during the last 200 years, and today this area makes up only a fraction of Denmark's total area.

Up until the mid 1980s, the presence of small biotopes on agricultural land was steadily falling. Today, however, their presence is increasing. As a whole, Danish natural habitats are small in size, and often they constitute isolated spots in the midst of agriculture's large stretches of cultivated land.

Small and detached natural habitats are very much influenced by their surroundings because impacts from outside influence a relatively large part of the area. What is more, small natural habitats provide homes for relatively few plants and animals compared to large natural habitats. As a consequence, small populations of animal and plant species are far more at risk of becoming extinct than large populations. Because of the isolated position of many natural landscapes in Denmark and the significance of edge effect, ecological processes - such as material flows, succession, and the food chain - are exposed to negative impacts from the surroundings; just as these conditions lead to fluctuations in animal and plant populations.

Denmark only has a few historic natural areas where plants and animals have been allowed to evolve naturally and continuously over a longer period of time. The conservation of such valuable historic natural areas is one of the most fundamental prerequisites when maintaining biodiversity.



Fewer wetlands and more nutrients; nevertheless, the negative trend has been curbed

Throughout the last 100-150 years the Danish landscape has become more and more dry. Only a few wetland areas are left compared to previously. Many watercourses and streams are maintained in order to provide efficient drainage of fields. However, this causes their value as habitats for plants and animals to deteriorate significantly.

As part of the general socioeconomic development, about 200,000 ha of wetland has been drained and reclaimed as a consequence of reclamation projects. However, this trend has been turned around and since 1989 about 10,000 ha of wetland has been re-established via public nature restoration. At the same time, the implementation of the Action Plan for the Aquatic Environment II means an ongoing restoration and re-establishment of watercourses and lakes, as well as establishment or re-establishment of water meadows and water holes. Many of the areas that have been drained today constitute marginal land, on which cultivation interest is decreasing or has ceased altogether. In this case, nature restoration, for example in combination with land consolidation, can help promote nature and environmental interests, and help solve local, structural problems in agriculture.



Large additions of nutrient salts – in particular nitrogen and phosphorous compounds – are a problem in all natural areas, on land, in lakes, in fjords, and in the sea. Increased additions of nutrient salts, and the associated intensified production of organic materials, generate radical changes in the composition of species, and, in most places, also a decline in the number of species. However, in watercourses situated in cultivated fringe areas concentrations of nitrogen are generally on the decline. Furthermore, the discharge of phosphorous from wastewater treatment plants and industry to large streams is no longer a problem. The main conclusion of national monitoring of the aquatic environment from 2002 is that since 1989 discharges of nutrient salts with wastewater and from cultivated areas have been significantly reduced. These reductions have improved nature and environmental conditions in lakes and marine areas. Nevertheless, many small watercourses and streams are still being radically influenced by wastewater from sparsely built-up areas.

From 1989 to 2000, concentrations of phosphorous in Danish lakes have fallen by 50 per cent. However, additions of phosphorous to the aquatic environment from cultivated areas remain a problem. Future estimates of the contents and the flow of phosphorous in Danish watercourses are inconclusive. Continued reductions in additions of wastewater from wastewater treatment plants are expected, and the release of accumulated phosphorous into lakes will lessen gradually. On the other hand, it is likely that runoffs from cultivated areas will increase in future years because additions of phosphorous including livestock manure are generally high, causing the continued increase of phosphorous contents in the soil. Although the state of watercourses and lakes exposed to organic substances and nutrients has improved considerably, only half of all Danish watercourses and lakes live up to the environmental standard defined in regional plans. Phosphorus from banks and risk areas is the primary source of phosphorus leaching to watercourses and lakes. Also wastewater from scarcely built-up areas plays a role.

The many natural areas on land are often strongly influenced by nutrient substances accumulated over several years, especially roadsides and small biotopes, but also other natural habitats in direct contact with surrounding farmland. Emissions of ammonia from manure tanks and from spreading of livestock manure constitute a special problem to natural areas vulnerable to airborne nitrogens in ammonia. This is a problem even though emissions of ammonia from agriculture have been reduced during the last decade by more than 30 per

cent. The evaluation of the Action Plan for the Aquatic Environment II shows that the goals set in the plan have been achieved.

Overall, the two action plans for the aquatic environment and the reforms of the EU agricultural policy have been central to the reduction of nitrogen and phosphorous surplus from agriculture by 25 per cent and 30 per cent, respectively, during the period 1990-2001. These are important steps in the right direction.

Changes in farming methods – industrialisation of agriculture and fisheries
Much of Denmark's terrestrial landscape is dependent on farming methods applied in agriculture. Similarly, our natural seascapes are often influenced by discharges of nutrients from land, whereas changes in the intensity of fishing may influence fish stocks.

Changes in farming methods can have several different consequences. In earlier times, grazing and harvesting of commons and meadows, as well as heaths grazed by sheep, were a natural part of farming. These old methods are no longer economically profitable or necessary elements in agricultural production. The areas are left to overgrow and thus the special and varied living conditions dependent on grazing and harvesting of dry grassland disappear. Attempts are being made to counter this development through grazing schemes for larger coherent meadows. But existing initiatives are far from adequate. An estimated 180,000 ha of meadow and dry grassland etc. today are either not being maintained at all, or are being maintained to an extent not adequate for their future existence. Around one half of all open natural habitats is thus threatened by overgrowing.



In other areas, both agriculture and fisheries have intensified in recent years. This development has left its mark on the natural diversity of arable land and the sea. A number of initiatives countering this negative development have been or are in the process of being implemented. This applies for instance to the action plans for the aquatic environment, measures under the EU Nitrate Directive, and agro-environmental support schemes and set-aside schemes, which all contribute to alleviating the effects of intensive production, and, in some areas, to retaining, improving, or increasing natural diversity.

Nature and manure

Additions of nutrients, including nitrogen compounds from agriculture in particular, constitute one of the most significant negative impacts on nature in open areas and in the aquatic environment. As part of Denmark's commitment under the Nitrate Directive and the Gothenburg Protocol, the application of nitrogens by agriculture is being regulated continuously.

In order to reduce discharges of nitrogens to the aquatic environment, in particular, but also increasingly to the terrestrial environment, Denmark implemented the Action Plan for the Aquatic Environment I in 1987, and in 1998 followed this up with the Action Plan for the Aquatic Environment II.

Work related to the Action Plans for the Aquatic Environment has been successful, and the goals set in Action Plans I and II have been reached. Leaching of nitrate has been halved, the consumption of nitrogen fertiliser has been halved. However, the protection of the aquatic environment also calls for long-term measures in other fields, for instance relating to phosphorus.

The Action Plan for the Aquatic Environment III launched by the Government in April 2004 will continue the positive development initiated by the first two Action Plans. The aquatic environment shall be further improved by reduced discharges of nitrogen and phosphorus, nature protection efforts shall be further improved, and nuisances experienced by neighbours to agricultural activities shall be limited.

The Action Plan for the Aquatic Environment III is very closely related to the implementation of the EU Water Framework Directive and the Habitats Directive, which state that objectives and programmes of measures for individual water bodies and natural habitats to apply from 2009 must be laid down. The main rule is that the objectives must be met by 2015.

10-year agreement period – coordination with the Water Framework Directive

This Agreement runs from 2005 to 2015 with evaluations in 2008 and 2011 respectively. When carrying out these evaluations, progress with regard to the general reduction objectives will be assessed, and the need for further initiatives can be analysed. The regional objectives for the status of the individual water bodies and natural habitats are laid down in accordance with the requirements in the EU directives for the end of 2008. Therefore, at the evaluation in 2008, it will be possible to assess the effects of the efforts thus far in relation to these objectives.



Reduction of excess phosphorous - objective of 50 per cent reduction

Agriculture's excess phosphorous must be halved compared to the 32,700 tonnes P in 2001/2002. A reduction of the excess phosphorous of 25 per cent by 2009 will be achieved through a tax of DKK 4 per kg of mineral phosphorous in feed and through general improvement of the phosphorous balance by 3,000 tonnes on the basis of new knowledge acquired through the research programme. In the period from 2009 to 2015 there will be a further 25 per cent reduction. The Parties to this Agreement will discuss the possibility of tightening the reduction objective, if it appears that technological development permits this. The need for changed/new instruments will be assessed in the evaluations. Revenues from this tax will be returned to agriculture through a reduction in land taxes in accordance with the principles of the Government's tax freeze.

Reduction in discharges of phosphorous - 50,000 ha of buffer zones

A focused effort will be made with regard to phosphorous discharges. Close to 30,000 ha of 10-metre crop-free buffer zones along rivers and lakes before 2009 and a further 20,000 ha before 2015 will be established. The buffer zones will be established by voluntary transfers of set-aside land along lakes and rivers. In order to support the establishment of crop-free buffer zones through siting set-aside land, an additional subsidy under the agri-environmental measures for crop-free buffer zones established along rivers and lakes will be introduced. The buffer zones will retain phosphorous from other areas and they will protect banks along rivers and lakes, and in this way the discharge of phosphorous will be reduced.

Objective and instruments for a minimum 13 per cent reduction in nitrogen leaching

Nitrogen leaching from agriculture is to be reduced by a minimum of 13 per cent by 2015 compared to 2003.

The structural development, including setting aside land, improved feed utilisation, and the implementation of the new EU agricultural reform are expected to lead to a reduction in nitrogen leaching from agriculture of approx. 11,200 tonnes N before 2015. In addition, afforestation in the range of 20,000-25,000 ha will contribute to reducing nitrogen leaching by approx. 900 tonnes N.

Initiatives have also been taken in relation to the rules for late crops, establishment of another 4,000 ha of wetland in 2004 and 2005, and less strict requirements for nitrogen removal, down to 100 kg N/ha for agri-environmental areas.

Protection of particularly vulnerable nature

With a view to protecting ammonia-sensitive habitats, 300-metre buffer zones are established around all raised bogs, all lobelia lakes, all – to start with – heaths larger than 10 ha, and all endangered and low-nutrient dry grassland larger than 2.5 ha, as well as all endangered heaths, dry grassland, and other particularly vulnerable types of natural habitat in the Natura 2000 sites. The total area where buffer zones are designated constitutes just over 7 per cent, corresponding to just over 180,000 ha. Within this buffer zone and within the area itself, no extension of livestock farms can take place if such an extension would lead to increased ammonia discharges in natural areas vulnerable to ammonia. Application of new technology may be used in such an assessment. Final designation of these areas will take place through the natural planning by counties up to 2009.

Other effects

Danish flora and fauna are also dependent on many other factors and effects. This applies to species, natural habitats and ecological cycles. For example, increased globalisation leads to a growing number of alien species being introduced to Denmark. Some of the new species do not give rise to any problems in nature, however others do.

The use of pesticides affects living conditions for wild plants and animal species in production areas and drifts to adjacent areas. What is more, pesticides can affect the material flow and lead to deterioration of soil ecosystems. On 10 October 2003 the Government published *Pesticide Plan 2004-2009 for reducing pesticide consumption and its impact on the environment*. The basis for the Pesticide Plan is the fact that use of pesticides not only effects pests, but also effects the remaining flora and fauna, just as pesticide residues may spread in the surrounding environment. Efforts must therefore be based on an efficient approval scheme and on minimisation of the use of pesticides to a level still allowing for profitable cultivation. The Pesticide Plan contains initiatives to reduce pesticide consumption in agriculture, fruit growing and horticulture, as well as initiatives to reduce private use of pesticides. In addition, the Pesticide Plan lays down targets for establishment of spray-free buffer zones along identified watercourses and lakes, as well as initiatives to protect Danish groundwater. The Pesticide Plan follows the same anticipated timetable as the Action Plan for Biodiversity and Nature Conservation. Therefore, pesticides are not treated individually in the latter. For the same reason the Action Plan for Biodiversity and Nature Conservation does not deal

with substances harmful to the environment, e.g. oil and chemical products, which can have negative effects on natural habitats.

Finally, climate changes will lead to further stress on ecosystem functions and valuable Danish habitats. By ensuring that there is greater variation, resilience, volume and quality of nature, the capacity of nature to adapt can be increased.



Danish initiatives in an international perspective

4 Danish initiatives in an international perspective

Global Deals – Convention on Biological Diversity

Biodiversity has an important role in sustainable development and in combating poverty. These two objectives characterise initiatives throughout the world. Globally and nationally. In the UN and the EU. The Action Plan is a concrete Danish initiative in this context. An initiative we have agreed on through our participation in the Convention on Biological Diversity, in which the other EU Member States also participate.

Ever since the first World Summit on the environment in Rio de Janeiro in 1992, biodiversity has been an important item on the international agenda. There are many core areas: From a Danish perspective, work under the UN Convention on Biological Diversity and in the EU is particularly important. UN work, because it sets the agenda for global initiatives. EU work, because biodiversity is thereby included in specific aspects of EU policies. Within the EU and the UN, there is general agreement to move from policy development to implementation of specific initiatives.

The Convention on Biodiversity (Convention on Biological Diversity)

The objective of the Convention on Biological Diversity is not only to protect biodiversity, but also to ensure that nature's resources are utilised in a sustainable manner and secure a fair division of the gains from genetic resources. In this manner the Convention combines the preservation of nature with consideration of development and reaches far further than previous nature protection conventions that have focused on particular endangered species or habitats.

At the Convention's sixth Convention of the Parties in 2002, a strategic plan was adopted to achieve the overall objective of a significant reduction in the loss of biodiversity before 2010. The strategic objectives are:

1. The Convention is fulfilling its leadership role in international biodiversity issues.
 2. Parties have improved financial, human, scientific, technical, and technological capacity to implement the Convention.
 3. National biodiversity strategies and Action Plans and the integration of biodiversity concerns into relevant sectors serve as an effective framework for the implementation of the objectives of the Convention.
 4. There is a better understanding of the importance of biodiversity and of the Convention, and this has led to broader engagement across society in implementation.
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At the UN World Summit in Johannesburg in 2002, the Danish Government and the other Member States reached a mutual agreement to achieve a significant reduction in the loss of biodiversity before 2010. It was also agreed to protect the most valuable natural areas and to promote national and regional biodiversity networks. This is one of the main issues to be addressed at the next COP to the Convention on Biological Diversity, which will be held in March 2004.

Work under the Convention on Biological Diversity will play a much greater part in the many other international negotiations where nature is on the agenda. This applies to the Convention on Trade with Endangered Animals and Plants (CITES, the Washington Convention), the Convention on Populations of Migratory Species (the Bonn Convention), the Convention on Wetlands (the Ramsar Convention), the regional conventions for the protection of the marine environment in the North East Atlantic (OSPAR) and in the Baltic Sea (HELCOM) and the European Landscape Convention. This also applies to negotiations concerning utilisation of natural resources in e.g. FAO and the United Nations Forum of Forests as well as the International Tropical Timber Organization (ITTO) and the Ministerial Conference on the Protection of Forests in Europe (MCPFE).

In 2001, FAO adopted an international treaty on plant genetic resources for food and agriculture. The treaty is in accordance with the convention on biodiversity, and sets out binding guidelines for conservation and use of crop plants and their wild relatives.

Biodiversity in the EU

The Danish Government's objective to ensure that loss of biodiversity is curbed by 2010 at the latest is shared by the EU. The political decisions regarding biodiversity at EU level, that Denmark to a large degree has contributed to, constitute an important part of the basis of the Danish Government's Action Plan. Danish efforts will be extremely effective when linked to initiatives in the other EU Member States. Moreover, by adhering to EU priorities in Denmark's national policies, we can achieve substantial interaction with a number of EU sector policies and subsidy schemes both with regard to content and finances.

In 1998 the EU Ministers for the Environment agreed on a Community Biodiversity Strategy. The Strategy focuses on the importance of integrating biodiversity considerations into relevant sector policies. As a follow-up to this, four Biodiversity Action Plans have been prepared. The Action Plans cover Conservation of Natural Resources, Agriculture, Fisheries and Economic Development Co-operation. Together they constitute a binding framework for the initiatives in this area taken by the Commission and EU Member States.

All the Member States have committed themselves to giving priority to the implementation of the NATURA 2000 network of bird protection and habitat areas through the EU Biodiversity Action Plan for the Conservation of Natural Resources. Member States must also protect species and habitats that are not included in this network. Prioritising in this manner is a general characteristic of Danish initiatives regarding biodiversity in the years to come. A precondition for full implementation of NATURA 2000 is that both the EU and the Member States secure the necessary economic instruments. Denmark has already fulfilled another of the overall objectives of the EU, namely speedy ratification and full implementation of the Cartagena Protocol on Biosafety. This was the case when Denmark joined the Protocol in 2002.



With regard to fisheries, EU Action Plans encourage implementation of targeted measures and actions in areas where biodiversity is particularly threatened due to fisheries and aquaculture. Pressure from fishing should be restricted to areas where there is an imbalance between fishing activity and fish stocks, and it may be necessary to further develop the administrative tools used in fisheries policies – closing of areas, sheltered marine areas and establishing or improving habitats for specific species.

The EU Biodiversity Action Plan for Agriculture includes seven prioritised areas for initiatives. These include maintaining economically viable and socially acceptable agriculture, particularly in areas with a wealth of biodiversity and where biodiversity has suffered losses, and securing ecological infrastructures. Environmentally sound agricultural measures should be used for preservation purposes and sustainable utilisation of biodiversity. Genetic biodiversity should be preserved and the uncontrollable spread of non-native species should be avoided.

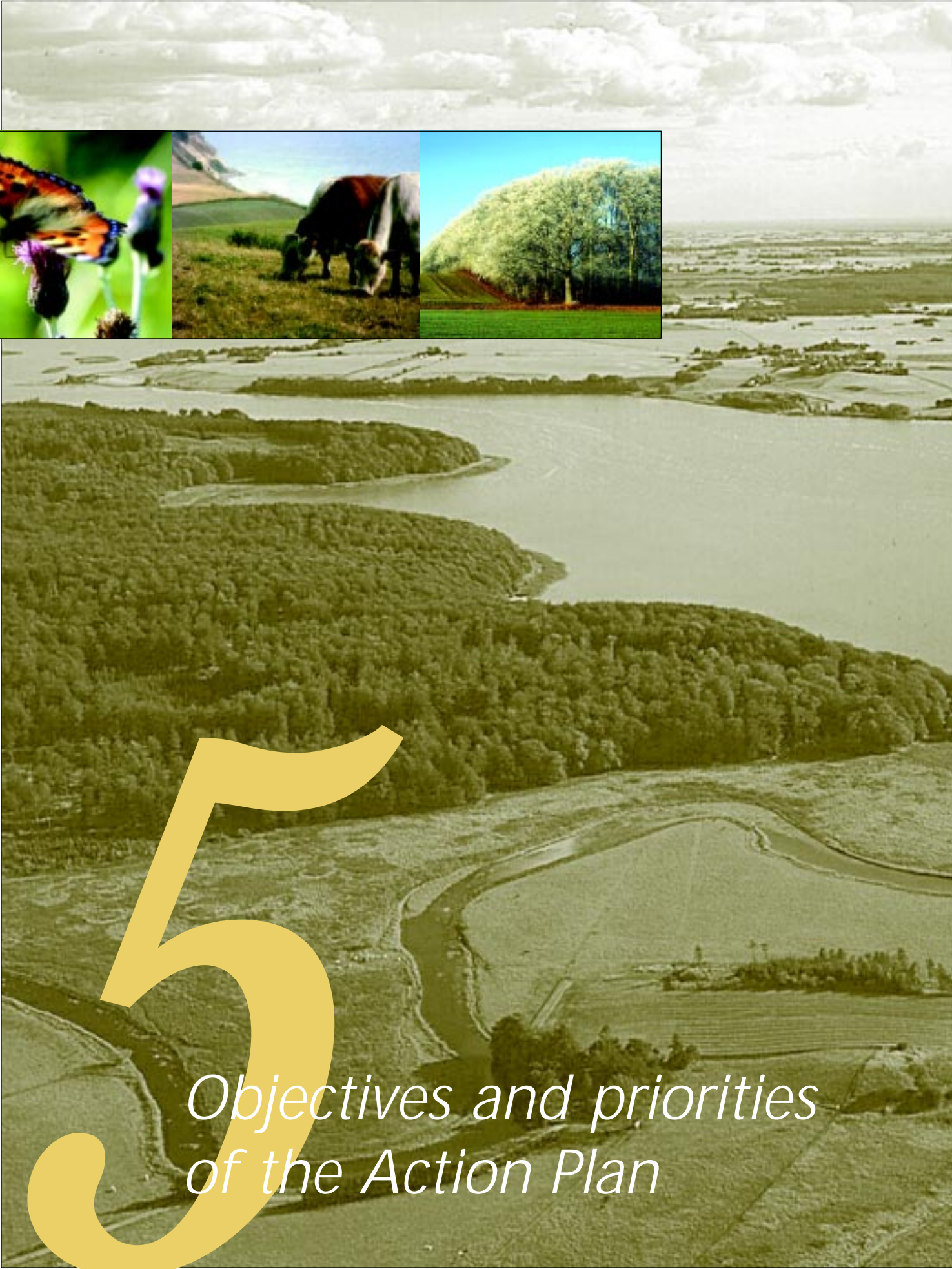


The European Commission expects to present proposals for a new regulation on the conservation of genetic resources very soon, following up the support programme previously operated by the EU

The Action Plan for economic cooperation and development cooperation describes initiatives to integrate biodiversity considerations into EU policies for development cooperation with developing countries and the Eastern and Central European countries in three interconnected areas; intensive production systems (agriculture, orchards, aquaculture, etc.), production systems that include wild species, as well as protected areas.

The effectiveness will be all the greater when both Eastern Europe and Western Europe agree on areas for initiatives. At the Pan European Conference of Ministers for the Environment in May 2003, all the European Ministers for the Environment agreed to adopt the EU 2010 targets in their national policies. A number of sub-targets were also set concerning:

- common criteria for agricultural areas with substantial natural diversity by 2006,
- protection of a substantial proportion of these agricultural areas through nature and environment-friendly agriculture and subsidy schemes for these areas by 2008,
- protection of all core areas in the Pan European Ecological Network by 2008,
- that at least half of the European countries have implemented Action Plans for education, communication and awareness as regards biodiversity by 2008.



5

*Objectives and priorities
of the Action Plan*



Objectives and priorities of the Action Plan

Main objectives

The framework for the Government's policy on nature has been incorporated into Denmark's National Strategy for Sustainable Development – "A Shared Future – Balanced Development", introduced by the Government in June 2002 and presented as an important Danish contribution at the World Summit on sustainable development in South Africa in August 2002. The Strategy sets eight objectives and principles for the Danish vision of sustainable development:

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- 1) The welfare society must be developed and economic growth must be decoupled from environmental impacts.
 - 2) There must be a safe and healthy environment for everyone, and we must maintain a high level of protection.
 - 3) We must secure a high degree of biodiversity and protect the ecosystems.
 - 4) Resources must be used more efficiently.
 - 5) We must take action at an international level
 - 6) Environmental considerations must be taken into account in all sectors.
 - 7) The market must support sustainable development.
 - 8) Sustainable development is a shared responsibility, and we must measure progress.
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The main themes in the Government's policy on nature were presented in the Government's proposal for this area from 8 August 2002, and the proposal has already been followed up in a report on nature policy that was discussed in the Folketing on 22 November 2002.

The objective is to ensure that loss of biodiversity is stopped by 2010.

Sector integration and new partnerships

New ideas are needed. First and foremost, sector integration in the nature and environment area should be supported and promoted. Everyone – private enterprises as well as public authorities – should be aware of their responsibility and thereby contribute accordingly. Therefore through this Action Plan the Danish Government has described how consideration of the environment and biodiversity can be integrated into many sectors of society. The task is demanding. It is so demanding that it is no longer feasible that any single ministry can be solely responsible for solving it. Therefore the Danish Government has asked that all the ministries – based on their own approach – describe initiatives in their area for the years to come. The Danish Government will develop further this new and broad approach in the coming years in an Inter-Ministerial Biodiversity Working Group. The Danish Government set up this Working Group to follow the further implementation of the Action Plan and to

secure continued and increased sector integration. Furthermore, the Working Group is to develop a set of indicators that can follow developments.

The Working Group will include representatives from ministries that have a special interest in biodiversity, that is, in addition to the Ministry of the Environment (the chair), the Ministry of Food, Agriculture and Fisheries, the Ministry of Transport and the Ministry of Defence.

The Action Plan presents a number of specific initiatives that the different ministries will try to implement or support within their own areas. In addition to the Ministry of the Environment, these are: the Ministry of Food, Agriculture and Fisheries, the Ministry of Defence, the Ministry of Transport, the Ministry of Economic and Business Affairs, the Ministry of Culture, the Ministry of Education, the Ministry of Foreign Affairs, the Ministry of Justice, and the Ministry of Ecclesiastical Affairs. The initiatives are described in brief in the relevant sections (5-9).

To achieve the main objectives of the plan, Denmark must involve new partnerships, i.e. segments of Danish society who perhaps have not played an important or obvious role in this area before, but who have the will and the resources to do so. Progress is more than just financial resources. One specific way to achieve this is to develop new partnerships between the private and public sectors. This holds great potential. The Danish Government has already entered into a number of partnerships with local authorities, waterworks and others in a joint effort to establish new forests and nature close to larger cities and towns. Closer cooperation between potential stakeholders, including waterworks, local authorities and nature organisations, will contribute to optimising efforts, and enhance nature, recreational activities and groundwater protection in the most cost-effective way. Hence there have been a growing number of initiatives for afforestation in particular, leading to improved recreational opportunities, cleaner drinking water and more nature. It has been agreed to plant 4,000 ha forest around Copenhagen, Aarhus and Aalborg in the coming years. In this way, partnerships contribute to realising projects to improve the environment. Specific projects like this, which of course should be supported by local residents, will in many cases lead to benefits for all parties. An agreement has also been made with the Danish Outdoor Council to establish further pilot project areas for national parks for DKK 20 million as a supplement the DKK 20 million that have been allocated for this purpose in the Finance Act.



NATURA 2000 in focus

It is necessary to give the same priority to nature as is given to other areas in society. All of nature is not equally important. The NATURA 2000 network and the habitats protected by section 3 in the Danish Nature Protection Act (e.g. heaths, dry grasslands, raised bogs, coastal meadows, lakes, and watercourses) indicate which natural habitats we consider most valuable. Moreover, NATURA 2000 includes a special obligation with regard to the EU to preserve or restore favourable conservation status in the areas the Government finds important.

What is NATURA 2000?

NATURA 2000 is a generic term for bird protection areas and habitat areas.

Bird protection *areas* have been designated in an effort to preserve populations of rare breeding birds or large concentrations of migrating birds. *Habitat areas* have been designated to preserve populations of rare animals and plants as well as different types of nature.

Member States have committed themselves to administrating the areas with a view to ensuring that species and habitats are given favourable conservation status. Together the areas make up the so-called NATURA 2000 network which will be one of the most important contributions to achieving the objective of stopping the reduction in biodiversity by 2010.



The Wilhjelm Committee also had this as their starting point, and suggested that initiatives should primarily focus on preservation of existing nature. The background for the project is that it may take up to 100 years to restore certain habitats should they disappear.

The basic idea behind the Action Plan is to invest resources in Denmark's most valuable natural areas. By designating NATURA 2000 sites at national level, an analysis and assessment of the natural diversity in a number of Denmark's best natural areas has already been carried out. Thereby the NATURA 2000 sites comprise a broad range of biodiversity of high quality, also seen in a European context. Targeting future efforts so they are primarily implemented in these areas will make efforts more efficient and secure the best nature for the money. The Action Plan therefore lays down clear priorities for future efforts:

- 1st priority: Existing natural areas, including small biotopes and semi-natural areas (section 3 areas) in NATURA 2000 sites and national parks.
- 2nd priority Other existing natural areas, including small biotopes and semi-natural areas (section 3 areas) outside NATURA 2000 sites and national parks.
- 3rd priority: New small biotopes and semi-natural areas in NATURA 2000 sites and national parks.
- 4th priority: New small biotopes and semi-natural areas outside NATURA 2000 sites etc. linked ecologically with other natural areas.

This prioritisation illustrates a general wish to create an overview and target economic efforts, particularly in publicly financed subsidy schemes. However specific assessments of the individual case may be required, so prioritisation does not serve to block the best solutions as regards nature. Therefore in some areas, greater gains for nature can be achieved by restoring habitats that have otherwise disappeared and linking them to existing isolated natural areas rather than by spending resources on areas with little natural diversity.

The Danish Government is striving to implement its commitments in accordance with NATURA 2000 through a 10-point programme. The first point in the programme has already been implemented, that is the designation of the NATURA 2000 sites and the call to the regional authorities to implement nature management. The next points, for example preparation of criteria for favourable conservation status and the monitoring programme NOVANA are available. A number of points, including implementation of nature man-

agement and other initiatives, will be implemented up to 2009. The 10-point programme for implementation of the European Habitats and Birds Directives can be seen in Annex B.

International initiatives

Denmark will strive to keep biological diversity on the international agenda for sustainable development and combating poverty, and we will also strive to unite efforts made by international organisations and conventions concerning utilisation of natural resources with regard to the 2010 objective of the Convention on Biological Diversity.

Being the host for the global information network on biodiversity – Global Biodiversity Information Technology Facility – Denmark is centrally placed in the efforts to develop methods and collect information on the status of global biodiversity.

Traditionally Denmark has given high priority to the overall objectives of the Convention on Biological Diversity regarding an equal and just division of the yield from genetic resources. This is an important incentive for protecting and utilising biodiversity in a sustainable manner, particularly in developing countries that have a wealth of biodiversity. The convention also establishes that access to genetic resources must be based on the conditions laid down by the country of origin. This also applies to indigenous peoples and the local community when making use of their knowledge of nature. In this connection Denmark aims to ensure that the Convention's rules about access to genetic resources and indigenous knowledge as well as international patent rules do not stand in the way of each other, but rather support each other.



Along the same lines, the recently adopted International Treaty on Plant Genetic Resources for Food and Agriculture provides for specific conditions for access for a number of crop plants and their wild relatives. In March 2003 the Danish Parliament decided that Denmark can ratify the Treaty.

Denmark's specific initiatives with regard to biodiversity and natural resources abroad have yielded considerable results over the past years. With regard to Denmark's bilateral assistance cooperation with developing countries, Denmark will now follow up on the decisions made at the Johannesburg summit concerning natural resources and biodiversity. This will be done by changing the broad approach seen so far to a more targeted approach focusing on specific areas for initiative, of which one will be direct natural resource management. Indirectly this will contribute to supporting implementation of the objective of the Convention on Biological Diversity and realisation of the Johannesburg objective concerning reducing the loss of biodiversity considerably by 2010 through new sector programmes within the areas health, education and water, and by focusing assistance to developing countries in general.

Through work relating to the fourth replenishment of the Global Environment Facility GEF, the financing mechanism for the UN Biodiversity Convention, Denmark is contributing to implementing the Convention in developing countries. One quarter of the GEF funds is being spent on biodiversity issues. Further, as from 2005 a new four-year framework contract will be made with the IUCN World Conservation Union, whose scientific committees and broad membership of governments, NGOs and international organisations, provide a unique forum for work to promote sustainable management of nature resources, at international, regional and local levels.

Local partners

Initiatives should be developed and implemented in a cost-efficient manner. In many places, local communities have already implemented small-scale projects to enhance and promote biodiversity in the local natural surroundings – examples are water holes and ponds, plantations, taking care of small meadows and grassland areas. Nature which may neither be unique nor have great national importance. However these areas are key to creating the stepping-stones and the green networks of small local natural areas that can secure greater cohesion between large natural areas as well as the survival of biodiversity in the long run.

The so-called Agenda 21-work that stems from the 1992 Rio Summit is continuously being developed in many municipalities. The Agenda 21 programme means that local authorities can cooperate with the public regarding a Local Agenda 21 for the local area. A targeted initiative by regional and local authorities to strengthen initiatives regarding nature in the Local Agenda 21 work will set the path for specific Action Plans in the nature area, and thereby contribute to preserving and restoring local biodiversity.



Local and regional authorities must explain their Local Agenda 21-strategy for the first time by the end of 2003. In this connection, the Ministry of the Environment issued a set of guidelines for Local Agenda 21-strategies in 2002. The guidelines offer inspiration for actions regional or local authorities can implement, for example actions to: increase the awareness of what animal and plant species need in order to survive; establish biotopes, ecological coherence between habitats, and improved living conditions for animals and plants in towns; and stop the use of pesticides. The objectives may be to enhance green areas in towns, expand areas with forests and nature, increase organic farming, etc.

In this connection the largest Danish municipality, the City of Copenhagen, is highly aware that the green areas in Copenhagen, and the lakes, watercourses and wetlands, the Sound and the marine areas of the harbour are important recreational areas, and hold a great potential for promotion of biological diversity close to the urban population.

In accordance with for example the Aarhus Convention, local participation is also ensured in larger nature projects that are implemented, for example through public hearings and by setting up user groups.

Information, consultancy and good dialogue are all extremely important aspects in the implementation of the Biodiversity Action Plan and are in accordance with the strategic objectives of the Convention.

In cooperation with the local organisations, the Ministry of the Environment will consider whether and how the local plan can enhance sustainable development in the local community.



6

*National parks
– cross-disciplinary
pilot projects*

6 National parks

– cross-disciplinary pilot projects

The development of Danish natural parks is a long-term project, owing to the fact that Danish nature is not wild and untamed, but rather a result of interaction with human activities. Another reason is that the Danish Government wishes that national parks should be anchored locally, and that decisions should be founded on a dialogue with the local residents.

The objective of national parks is to strengthen nature and enhance the opportunities for developing large coherent areas, including maintaining biodiversity, landscapes, and cultural-historical assets. The areas must represent different typical Danish habitats and landscapes, improve the flora and fauna and the way they spread, safeguard the dynamics of nature and the processes in ecosystems, and offer attractive and unique nature experiences for the Danish population and for tourists.

Initiatives to develop Danish national parks include both enhancement of the quality of existing nature, and restoration and establishment of new natural areas.

National parks mean that we can satisfy the need for increased coherence between natural areas; reserve areas where nature can develop according to its own dynamics; solve a range of specific problems, for instance that nature suffers from lack of water, that light and open spaces become overgrown, and that nature is affected by too many nutrients, pesticides etc. We can also cover the need for efforts to improve conditions for a number of species on the Red List of threatened flora and fauna.

With this in mind, the projects are expected to focus on a broad spectrum of instruments founded in a number of ministries, for instance planning, purchasing, conservation targets, and management plans for NATURA 2000 sites and species, support schemes under the Rural Districts Programme, the Forest and the Nature protection Acts, regulation of fisheries, access to nature, and tools used in the management of species and genes.

In 2003/2004, the Ministry of the Environment launched seven pilot projects. The projects deal with the establishment of national parks (Lille Vildmose, Mols Bjerger, Møn, Thy Klitheder, the Wadden Sea, Gribskov/Esrum Sø, and Læsø). The results of the projects will include analyses of the socio-economic and financial consequences of realising national parks in these areas. The results will be presented in 2005, and will be included in the Government's considerations on the establishment of national parks. Where national parks are to be established, the development of the parks will be closely linked to the management plans for the NATURA 2000 sites covered by the national parks.



*Conservation of existing
natural assets: natural
habitats*



Conservation of existing natural assets: natural habitats

Natural habitats include forests, lakes, watercourses, bogs, freshwater meadows, coastal meadows, dry grassland, heaths, dunes, small biotopes (waterholes, hedges etc.) and various marine areas and fjords, coastal lagoons, stone reefs etc. To this should be added the arable land that is normally not included in natural habitats proper. What is important is to see the natural habitats in their ecological context, for instance systems of watercourses, river valleys, lakes, fjords and riparian zones, or coasts, dunes, dune heaths, coastal meadows and coastal slopes.

State authorities own and manage a number of terrestrial natural areas, primarily the Ministry of the Environment (188,000 ha), the Ministry of Defence (approx. 32,000 ha), the Ministry of Ecclesiastical Affairs (approx. 17,000 ha), the Ministry of Transport (approx. 10,500 ha), and the Ministry of Food, Agriculture and Fisheries (approx. 9,000 ha), a total of approx. 257,000 ha (2,570 km²) or 6 per cent of Denmark's area. State natural areas and the marine territory are covered by the same rules as those applying to other areas, but in many cases specific plans of operation and management are also applied. A total of 9.3 per cent of Denmark is covered by the general rules of the Nature Protection Act (section 3) on conservation of natural habitats (lakes, watercourses, waterholes, bogs, coastal meadows, freshwater meadows, dry grassland, and heaths). About 4 per cent of Denmark is listed in accordance with the Nature Protection Act, and 7.4 per cent of Denmark falls under the NATURA 2000 network. There is an extensive overlap between areas owned by the State, NATURA 2000 sites, and generally conserved and listed areas.

Like two-thirds of the forest area, by far the major part of the open land, including cultivated agricultural land, a total of approx. 2,652,000 ha (approx. 26,520 km²), is owned by private owners. Many small nature areas such as meadows, dry grassland, and small biotopes are scattered between the intensively cultivated areas. These semi-natural areas are most often protected under the Nature Protection Act, and to ease the pressure from intensive cultivation on these habitats, or to prevent overgrowing of areas that are no longer used for agricultural purposes, EU agricultural support funds can be granted towards environmentally safe farming practices ensuring preservation and care of the areas, or towards setting aside arable land.

Regional authorities administer a number of rules on land use and are responsible for spatial planning of the open countryside via regional plans.

Legislation

National legislation offers the most important administrative tools for the protection and restoration of biodiversity. The Government has decided that the Nature Protection Act and the Forest Act, both administered by the Ministry of the Environment, are to be revised, among other things to supplement the process of implementation of the Habitats Directive. In connection with the revision of these Acts and with the implementation of the

Water Framework Directive, a specific legal framework will be set up for planning and management of NATURA 2000 sites.

The Act Environmental Targets Act, which was adopted in December 2003, lays down the administrative and procedural requirements for planning of wetlands and international nature conservation areas (NATURA 2000 sites). The Act obligates the counties to prepare NATURA 2000 plans for Danish international nature conservation areas not situated in forests. This includes establishing objectives and preparing action programmes, as well as making sure that action programmes, which have been adopted, are implemented and completed. The proposal for a new Forest Act contains similar provisions on the duty of the Minister of the Environment to prepare NATURA 2000 forest plans for the wooded “fredskovspligtige” areas, i.e. areas that must be wooded in perpetuity, within NATURA 2000 sites.

The proposal for an amendment of the Nature Protection Act and the proposal for a new Forest Act also include tools that will enable the authorities to realise plans. These tools will make sure that prior assessments are made of the consequences of those new activities which may have significant impacts on natural areas and habitats for species within the NATURA 2000 sites, and they include provisions on active management of the areas in order to achieve the objectives specified in the plans. It is presumed that this can be achieved e.g. via agreements with owners about management of individual land areas or other measures. However, if an agreement cannot be made, the authorities are required to order the owners to carry out the necessary measures.

The proposals moreover contain a general provision on the conservation of biological grasslands over a certain size, as well as rules improving public access to nature, whereas the new Forest Act e.g. will facilitate forest owners' management of their forests according to near-nature principles.

The Government has presented a proposal for a revision of the Agricultural Act and a proposal for management of agricultural land, both contributing to enhancing nature. Among the aims are to ensure that light and open habitats are under certain conditions kept free of trees and bushes, to make it easier to establish new nature, including in connection with non-profit acquisition of land for nature purposes.

Planning

Spatial planning is an important instrument in the conservation and restoration of biodiversity. Planning takes place at several levels, with different objectives and at different levels of detail, ranging from national and regional planning, to municipal and local structure planning.

The objectives are e.g. to make sure that continued development is on a sustainable basis, and to safeguard important Danish nature and landscape resources.

EIA (Environmental Impact Assessments) is carried out for projects which have significant impacts on the environment. For a number of specific projects, EIA is obligatory, whereas for other projects assessment of whether the project is covered by the EIA obligation is required.



For a number of plans pertaining to agriculture, forestry, fisheries, water management, tourism etc., the SEA (Strategic Environmental Assessment) Directive requires an assessment of the potential impacts of the plans on the environment. In 2004, the Government presented a bill that is to implement the provisions of the SEA Directive into Danish legislation.

A new planning tool, the concept of “nature planning”, is being introduced. Nature planning is a way of assessing the state of nature, establishing objectives, and building a basis for prioritising efforts in geographically delimited natural areas, such as international nature conservation areas, section-3 areas, or potential new natural areas.

Nature planning can be of use to the county in its work on:

- Integrating the management of nature with other fields of activity in regional planning and creating a framework for municipal planning.
- Assessing where to expand the natural area of Denmark.
- Providing the public with better information on natural assets.
- Contributing to fulfilling Denmark’s EU commitments regarding nature (the EC Habitats Directive, in particular).
- Qualifying the decision basis for use of nature management and making the administrative basis for the execution of authority clear.



In the 2005 regional plan, the regional authorities have access to a tool to secure more targeted efforts at regional level. This nature planning concept can be used generally for all nature areas, but – according to the Act on environmental targets etc. for wetlands and international nature conservation areas – the concept can also be used as a tool to prepare management and action plans relating to the practical implementation of the Habitats Directive and the Water Framework Directive up to 2009. 2009 inaugurates a new regional planning period, in which nature planning can be developed further as a basis for prioritisation.

The Danish landscape is to a great extent a cultivated landscape. It has been cultivated and built on for generations and contains flora and fauna that have adapted to its special characteristics. Especially the coast and shallow-water marine areas contribute to Denmark’s unique characteristics and international significance. In nature conservation work the landscape, and in particular the Danish coastline, has special priority. The Ministry of the Environment has designated and described the most important national coastal geological interest areas in Denmark. In cooperation with the Funen County and the County of Aarhus, the Ministry of the Environment is developing a landscape analysis method with a view to inspiring the counties to encompass the conservation of typical and characteristic Danish landscape types in their continued work on regional planning.

The Ministry of Culture will carry out a nationwide survey of areas of particular archaeological interest in connection with spatial planning. Furthermore, the Ministry will continue its cooperation with the Ministry of the Environment, counties, and municipalities on designating and securing natural environments of cultural-historic value in spatial planning. Apart from safeguarding Danish cultural heritage, this will also help safeguard nature and biodiversity conservation in the areas – depending on their characteristics. Cooperation with counties on registration and designation of stone and earth walls will be developed further with the objective of establishing permanent protection of a coherent network of protected natural areas.

The nature planning of counties and nature management is widely based on a strategy founded on a regional/local conservation structure where emphasis is on conservation and restoration of ecological coherence. The nature strategy of the counties, on the one hand, protects existing and often threatened assets, and on the other hand, creates a basis for conditions which, in the long term, will lead to the development of a more varied and valuable nature.

The basis for securing overall planning of coastal waters, allowing concerted management of terrestrial and marine coastal areas, will be evaluated in relation to the implementation of the Water Framework Directive and the Habitats Directive and in relation to the EU recommendation for implementation of integrated coastal zone management.

Most natural areas are integrated in active farm units. The Ministry of Food, Agriculture and Fisheries has launched a number of initiatives to improve the operation of light and open natural habitats. Beside the Environmentally Friendly Agricultural Practices (agro-environmental schemes) initiatives include pilot and demonstration projects on grazing associations and nature plans.

The Ministry of Food, Agriculture and Fisheries and the Ministry of the Environment will jointly consider the role and relationship with nature planning that nature plans – at property level – can have in the protection of biotopes.

Conditions for Danish agriculture and agribusiness are undergoing rapid changes. There is more pressure globally from free trade, and within the EU there is a wish for simplification of the Common Agricultural Policy and for limitations in subsidies. Efforts in Denmark to solve the environmental problems of agriculture have produced good results, however in many areas nature and the environment are still under pressure, just as there is fierce competition for acreage between agribusiness and e.g. natural areas. However, developments are not uniform throughout Denmark. It is therefore paramount that a decision is made as to how a balance between targets for agriculture and other land-use interests, e.g. nature conservation interests, is struck. In 2003, the Ministry of the Environment instigated a project to produce ideas for the development of regional agricultural strategies that can be used when making decisions on developments in agriculture. This project is the basis for a number of projects based on dialogue, which the Minister will launch in collaboration with counties interested in preparing regional agricultural strategies. Farmers and other stakeholders will be given the opportunity to participate in these local dialogue-based projects.



Nature-friendly management of state-owned nature areas

Ministry of the Environment

For areas owned by the Ministry of the Environment (188,000 ha) and managed by the Danish Forest and Nature Agency, detailed management plans will be prepared, based for instance on a review of areas under section 3 of the Nature Protection Act (general protection) and other open natural areas. The plans give instructions for efforts to maintain and improve the natural elements and the biodiversity of the areas. The plans will also form the basis for current management initiatives and major projects to restore endangered habitats.

The management of the forests owned by the Ministry of the Environment will now be changed into near-nature forestry, and the transition process will be completed within one tree generation. By the end of 2004, the Danish Forest and Nature Agency will prepare an action plan for the transition to near-nature forestry.

Ministry of Defence – management plans for exercise and training areas

In the years after the Ministry of Defence adopted its first environment strategy, the general objective of the Ministry has been to protect and safeguard the rich diversity of these areas. The objectives are met by detailed management plans for individual areas. The Ministry of Defence will continue these efforts in the future. Plans for the 46 exercise areas under the Ministry and for a number of small areas under the Home Guard are expected to be completed by the end of 2005.

The Danish Forest and Nature Agency is contributing to this work with technical and professional knowledge. All management plans cover periods of 15 years and a total of approx. 32,000 ha nature areas. The first plan was prepared in 1993, and a revision of the first 16 plans of management will therefore be carried out in 2005-2006. The remaining plans will be revised when needed. Work under the management plans is, thus, an ongoing process. The revision of the plans will also include evaluation of the management measures taken, to document their biological effect. The Ministry of Defence therefore expects to fulfil the objective of the Danish Government's and the EU to curb the deterioration of biodiversity in the areas owned by the Ministry by as soon as 2005.



Ministry of Ecclesiastical Affairs – management of land under the Danish Church

The Danish Church owns a total of approx 17,000 ha of land, i.e. 4-500 holdings operated as farm units. The Ministry of Ecclesiastical Affairs will contribute to designating areas and safeguarding biodiversity in the areas that have so far only been used for extensive farming (typically small meadows, forest and bog areas). This also applies to areas that form part of the surroundings of churches or are located close to urban areas, and that hold special recreational values for the local community. The church authorities contribute with information on the areas, allowing it to be included in a possible overall registration of particularly valuable nature areas and in future work to safeguard the natural assets they hold.

Ministry of Food, Agriculture and Fisheries – management plans for areas under the Ministry

The areas owned by the Ministry of Food, Agriculture and Fisheries include approx. 5,000 ha coastal meadows, freshwater meadows, bogs and dry grassland, administered with due regard to the natural assets they hold. The aim is to increase the quality and biodiversity of the areas, and management plans will be prepared to this end. According to plans, the first management plan for the large interconnected semi-natural areas with special biological qualities will be ready before the end of 2004. One example is Margrethe Kog, where efforts to transform a coastline (affected by salt water) into humid marshland have succeeded in replacing a valuable biotope by another equally valuable and biologically attractive area. Another example is the coastline (coastal meadows at the Wadden Sea outside the dikes from Esbjerg to the Danish-German border), where operation plans also aim at furthering the biodiversity.

The semi-natural areas are used for grazing, and the management plans will include directions for the use of fertilizers and pesticides, water levels, grazing intensity, time of year when livestock is turned out, and the duration of the grazing period, with a view to establishing/safeguarding the diversity in the area.

Ministry of Transport

The Ministry of Transport owns a number of areas, which are managed by the Danish Coastal Authority, i.e. a total of approx. 10,500 ha along the west coast of Jutland, including large natural areas, for instance Agger and Harboøre Tange, Skallingen and Rømø Dam.

Active management of nature areas

A number of ministries, and the Ministry of the Environment and the Ministry of Food, Agriculture and Fisheries in particular, are cooperating closely with the regional authorities, sharing the responsibility for management and maintenance of a number of endangered habitats, for instance dry grassland, freshwater meadows, coastal meadows and heaths, which can only be maintained by active management efforts, like extensive agriculture (grazing, cutting of hay) or felling of trees when needed. Within forestry, efforts will focus more on nature-friendly and, thus, often less intensive forms of operation. The Danish municipalities are also responsible for the management of large public areas.

For a number of years, attention has been directed towards the impact of modern intensive agriculture on nature and the environment, and efforts are being made to solve a range of important problems. Often, the measures taken in Denmark may improve the natural assets of the landscape and, at the same time, solve the problems presented by marginal land that is no longer profitable for farmers to cultivate. This applies both to drained fields with shallow depth of soil, which are of marginal importance today, for instance certain river valleys and reclaimed coastal land, and the dry sandy fields, where irrigation is largely needed but impossible in practice. And, further, part of the approx. 220,000 ha agricultural land which are now set aside under the EU agricultural schemes, no matter the potential they present in terms of natural values.



Areas designated under the EU Habitats and Birds Directives

Active management of NATURA 2000 sites will be strengthened through the proposals for amendments to the Nature Protection Act and the Forest Act, which has been presented by the Danish Government in 2004. In the Action environmental targets etc. for wetlands and international nature conservation areas, overall plans have been set up for efforts to meet the obligations under the Habitats Directive and the Water Framework Directive up to 2009. Active management will, thus, be based on nature planning at regional level and on the implementation of the nature monitoring programme NOVANA. The required legislative basis is thus provided for overall nature planning and for the achievement by the authorities of the objectives for nature planning in those situations where agreement cannot be reached with the owner of the land involved.

As far as marine habitats and species are concerned, the EU is working to clarify a number of technical matters. Therefore, planning and management of these habitats and species have not progressed as far as work relating to terrestrial habitats. However, the Act on environmental targets etc. for wetlands and international nature conservation areas empowers the Minister to draw up plans for marine areas.

The National Forest Programme

In 2001 the organisations, institutions and authorities involved agreed on a set of voluntary guidelines for sustainable forestry at individual property level. Among the primary principles of the guidelines are the transitions to near-nature forestry, thereby promoting the use

of tree species adapted to the specific locality in which they grow, indigenous species in particular, which may form part of forest types that are stable, sustainable and self-renewing in the long term. Furthermore, the guidelines state that biodiversity should be considered to a greater extent, for example by leaving more dead wood in the forests and restoring the natural hydrological balance.

In 2002 the Government adopted Denmark's National Forest Programme, which sets out the current political framework for Danish forestry. The key objective for the development of forestry is development towards sustainable forestry in accordance with internationally recognised principles of economic, ecological, and social consideration. The core of the National Forest Programme is the transition to near-nature forestry based on Danish guidelines for sustainable forestry. Under the programme, 10 per cent of the total forest area must by 2040 be operated with the primary aim of safeguarding nature and biodiversity. A major tool in this direction is the revision of the Forest Act, widening the framework for forestry and the scope for biological diversity. In practice this means that forestry will in the future focus more on natural processes and forest succession. Moreover, special account will be taken of obligations under the Habitats and the Birds Directives. The Forest Programme follows up on the objective of increasing the forest cover to 20-25 per cent of the area of Denmark within a tree generation (80-100 years). This objective will be further developed in order to increase the value and biodiversity resulting from afforestation.



The international objective is to promote sustainable forestry in accordance with international goals for the European Communities and for Europe in general.

Listing

Listing at state level will in the future focus on listings with clear national interests, and, thus, on listings securing the best and most cost-effective solutions for nature, seen from a national perspective.

Together with the Danish Society for the Conservation of Nature and with Danish Regions, a working group has been set up to discuss preservation work in the future, i.e. the criteria for and prioritisation of preservation issues, aiming at providing a common basis for work, to be used in the on-going planning of targeted efforts.

Action against discharges of nutrients

The Government intends to take action against the considerable impact from nutrients in Danish aquatic and natural areas. The Action Plan for the Aquatic Environment II has provided the desired results, and the technical/scientific basis for a third Action Plan has been established.

Prior to the establishment or enlargement of animal production units the law requires that EIA procedures are carried out in order to ensure that vulnerable nature and the aquatic environment – NATURA 2000 sites in particular – are not exposed to increased nutrient pressure. In 2003 the Minister for the Environment asked the competent authorities to make sure that EIA assessment of pig farms focuses especially on international nature protection areas. With the anticipated revision of the Nature Protection Act, the Government wishes to ensure that counties are obliged to intervene in cases where there is evidence that the impact of existing activities on natural areas conflicts with the Habitats Directive.

Strengthened efforts to protect particularly endangered and exposed habitats

In a number of habitats, for instance nutrient-poor heaths, fens, dry grassland and clearwater lakes, nutrients from surrounding areas and activities have a negative impact. The Government will present specific initiatives to safeguard important nature values in a number of particularly endangered habitats, for instance the remaining bogs, dry grassland, and clearwater lakes.

Management of marine nature

Shallow Danish marine areas hold important international natural assets that we are obliged to protect. A significant reduction of impacts from nutrients which can lead to serious oxygen depletion, from oil spills, and from a wide array of environmental toxins, is essential in this connection. Moreover, fisheries must be managed in a sustainable manner in order to protect or restore fish species and their habitats.

The protection of marine nature is highly dependent on international cooperation. The Government therefore contributes actively to the development and implementation of a European marine strategy, aiming at gathering international efforts to protect the marine environment and forming the basis for action at EU level. During the Danish Presidency, Denmark hosted a conference in December 2002, where the framework for action was decided. Already in March 2003 agreement was reached at EU level on detailed initiatives and a timetable for the European Marine Strategy. The Strategy covers all major topics: reduction of landbased and shipbased discharges, safety of navigation, monitoring and inspection, chemical issues, nutrients, fisheries etc., and will be ready in 2005.

Denmark is following work to reduce the threat of pollution from ships in the International Maritime Organisation IMO, the EU, and HELCOM. Special efforts are being made to prevent disasters from oil pollution from single-hull tankers, not least triggered by the very serious consequences such incidents in Danish waters may have for biodiversity. Denmark has actively supported future EU rules requiring heavy oil to be carried in double-hull tankers, and accelerated phasing-out of single-hull tankers. In this connection Denmark has proposed similar rules within the auspices of HELCOM, ensuring that the Baltic countries are also brought up to EU standards. Moreover, the Danish Government has proposed that HELCOM prepares an application to the IMO about designation of whole or part of the Baltic Sea as Particularly Sensitive Sea Areas – PSSA. On 2 April 2004, the IMO officially designated the Baltic Sea a Particularly Sensitive Sea Area. This classification now enables tightening of the rules applying to the transport of oil through the Baltic Sea. In October 2002, following a joint Danish-Dutch-German application, the Wadden Sea was designated a PSSA, as the fifth area in the world.

Implementation of NATURA 2000 at sea will be given very high priority. Large NATURA 2000 sites have been designated in the coastal areas, including three large, new bird protection areas in northern Kattegat. However, a working group under the European Commission is working to solve a number of technical issues, to pave the way for determination of criteria for favourable conservation status for habitats and species and for the revision of the designation criteria. When this work is completed the Government will initiate work to determine the objectives and initiatives in NATURA 2000 marine areas, in line with other EU countries. The pilot project on national parks at sea mentioned earlier will also focus on this work. Future NATURA 2000 sites in the open sea, up to 200 nautical miles from coasts, will not be designated until the Commission working group has completed its work.



The EU Rural Districts Programme

The environment- and nature-related measures in the EU co-financed rural districts programme are important instruments in efforts to promote nature considerations in agriculture and forestry. The Government has decided that the nature elements in the Rural Districts Programme should be increased for measures taken both under the Ministry of Food, Agriculture and Fisheries and under the Ministry of the Environment. At the end of 2003 work was initiated to renew the rural districts programme along two lines: growth and development, and nature and the environment.

The Rural Districts Programme includes a number of schemes aiming at improving natural diversity:

Agro-environmental measures

As from 2003 the scope of Particularly Sensitive Agricultural Areas (PSAA) has been extended, to cover more natural and semi-natural areas, including section 3 areas under the Danish Nature Protection Act and NATURA 2000 sites, thus significantly increasing the area of land eligible for agro-environment schemes. A further new element is that the regional councils must designate PSAA buffer zones (not below 20 m wide) along nature and semi-natural areas, hedges, small plantations and similar biotopes.



The structure of subsidies for individual PSAA measures has been simplified, and the following measures revised:

Protection of the aquatic environment and nature: the regional authorities and the farmer can cooperate to define a combination of terms for the establishment and operation of areas that are adapted to the local needs for the protection of nature and the environment, and at the same time meet the wishes of the farmer to the greatest possible extent. Certain standard terms apply, for instance a ban on pesticides. On the other hand, the terms for limited or no application of fertilisers, grazing intensity, fodder supplement and cutting of hay etc. are subject to negotiations. It is anticipated that the terms fixed in the agreement may vary, from cultivation proper of the area, to management and care or set-aside. Furthermore, subsidies can be granted in connection with the special terms laid down.

Establishment of wetlands, primarily to utilise the ability of the areas to reduce nitrogen leaching to the open aquatic environment. This also promotes the maintenance of this particular habitat, which is endangered by the intensive cultivation of agricultural land. The areas will be established and maintained as grassland or nature areas, must not be converted to other purposes. Furthermore, the use of pesticides is not allowed. Individual agreements for the operation of these areas can be made, in line with the above measure “*Protection of the aquatic environment and nature*”.

Extensive buffer zones, either 1) spray-free margin strips, or 2) spray-and-fertiliser-free strips.

Organic farming

As part of the reform of the present subsidy schemes for organic farming, a new nationwide agro-environment measure was introduced as from January 2004, specifying an average maximum of 140 kg total N/ha, and prohibiting application of pesticides on the areas registered under the scheme. Both conventional and organic farmers are eligible for support, but organic farmers rank highest. The scheme is expected to contribute to enhancing flexibility when purchasing and selling land, and, thus, to increase the areas cultivated by organic/environmentally friendly practices.

As per 1 January 2004 the area of land in Denmark cultivated organically covered approx. 170,000 ha.

Pilot and demonstration projects: grazing associations and nature plans

In spring 2003 a large-scale pilot and demonstration scheme was launched, aiming at improving and increasing the extent and quality of nature and semi-natural areas by demonstrating, explaining, and increasing interest in grazing associations and nature plans, and aiming at testing and demonstrating different concepts of grazing associations and nature plans.

The preparation of nature plans at farm level, or collective nature plans, can serve as a valuable tool to improve the state of nature on farmland. Apart from initiating specific care and nature restoration projects, the preparation of the plans helps make the farmer more aware of the natural assets on his farmland and thereby strengthen the incentive to apply a proactive nature management.

Forest schemes

At present, measures targeted towards forests and afforestation represent approx. 10 per cent of the overall budget of the Danish Rural Districts Programme. Forestry measures eligible for EU co-financing include funds for: afforestation, increased establishment of deciduous forest etc. in existing forests, and establishment of robust forests after the storm damage in 1999. Moreover, the EU is also co-financing the establishment of state forests after the damages in 1999.



Follow-up on the decision to reform the EU Common Agricultural Policy
In June 2003, the EU decided to implement a reform of the Common Agricultural Policy “A long-term perspective for sustainable agriculture”, ensuring that the European Community can meet the objectives for sustainable agriculture and development of rural districts. In terms of biodiversity and nature conservation, the primary element of the decision is the decoupling of direct support to agriculture, strengthening of rural policy, and more flexible set-aside schemes. The decision will be implemented in Denmark over the coming years.

Decoupling of direct support

Payment of decoupled support and other direct support is based on cross-compliance, i.e. a number of EU regulations for the environment, for animal welfare and for food safety (for both humans and animals) must be observed. Moreover, support is only given if the areas are kept in “good agricultural and environmental condition”, to be defined by the Member States on the basis of a common framework and common standards. The common framework includes terms for the exploitation of terrestrial resources and minimum level of maintenance, and also aims at preventing deterioration of habitats (natural assets and biological diversity).

Strengthening of rural policy

The rural policy will be strengthened, in terms of scope by extending possible focus areas under rural districts regulation, and also financially by transferring EU funds from direct support to EU co-financing of national rural districts programmes from 2006. Furthermore, for some of the existing measures the levels of support have been raised, and, finally, the maximum EU co-financing level has been raised for environmentally friendly agriculture from 50 to 60 per cent. Therefore Danish co-financing rates have been similarly reduced for these schemes.

Set-aside


Requirements for compulsory set-aside will still prevail – basically corresponding to 10 per cent of areas with grain, oil seeds and protein crops. Under the reform, areas can be set aside in a more environmentally friendly manner, since, in the future, the minimum area will be 0.1 ha, and the minimum width has been reduced to 10 m; in special environmental conditions down to 0.05 ha and 5 m.

Compensation for EU environmental requirements

Under the Rural Districts Regulation certain possibilities exist for compensation for restrictions caused by the implementation of the Bird Directive and the Habitat Directive. The Government will investigate the possibilities for using EU rules on area-based support for farmers, in order to offset the costs and the loss of income borne by farmers who have to reduce the exploitation of land in accordance with a number of EU environmental requirements.



Nature restoration and new habitats



Nature restoration and new habitats

In recent years, nature restoration and afforestation have led to increased variation and biodiversity in nature. However, further efforts are still needed, if ecological coherence between the many different isolated natural areas is to be restored.

The aquatic environment and nature

The Government will establish cross-disciplinary efforts in favour of the aquatic environment and nature. Efforts aimed at the aquatic environment must therefore be targeted at desirable effects in nature. This applies, in particular, to both aquatic and terrestrial natural areas high on the priority list.

The Government caused the adoption of a new Act on environmental targets etc. for wetlands and international nature conservation areas. This Act is to ensure better coordination of water and nature planning. Thus there will be greater coherence between initiatives to improve the quality of nature and initiatives to improve the quality of Danish water resources – in watercourses, coastal waters and groundwater. With the Environmental Targets Act counties are obligated to prepare binding plans for their management of NATURA 2000 sites.

New wetland areas

A decision was made in late December to carry out preliminary investigations of well over 8,000 ha of land. Another 5,000 ha of land are being, or have already been, restored under the Action Plan for the Aquatic Environment II.

Via the Rural Districts Programme, the Ministry of Food, Agriculture and Fisheries can support initiatives which lead to increased natural diversity, in terms of meadows and other wetland areas. Initiatives include exploiting the ability of wetland areas to reduce nitrogen washout to the open aquatic environment via denitrification. Areas such as these will be established and maintained as grassland or nature areas, and must not to be converted into other uses; nor may they be treated with plant protection products.

Nature restoration

Since 1989 the Ministry of the Environment has spent approx. DKK 2 billion on nature management. In the years to come the Ministry will carry out activities and implement restrictions within the field of nature restoration and afforestation. This will be realised in terms of enhanced targeting of such activities as special-interest areas, e.g. related to NATURA 2000 sites; pilot projects on the establishment of national parks; suburban areas with limited natural biodiversity; areas containing vulnerable or threatened drinking water reserves; and possibilities for creating coherence between natural areas.

The Ministry of Culture will continue its cooperation with the Ministry of the Environment and regional authorities concerning nature restoration projects of cultural significance. An example of one such completed project *combining* the interests of several actors is the raising of the water level in Store Åmose, a dried-out marsh in West Zealand, whereby archaeological findings of international significance may be preserved.





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9 Management of species and genes

The latest overall assessment of the status of species in Denmark was given in the national Red List from 1997. According to the Red List, 2,799 species, out of a total of approximately 10,600 species distributed between 19 different plant and animal groupings, are considered at risk of disappearing from the Danish landscape; whereas 343 species are considered extinct.

The Danish Forest and Nature Agency is responsible for the management of endangered species. Other sectors manage species which are not endangered, but which exist in populations big enough to allow for commercial exploitation. The sectors responsible must integrate considerations for the environment in their policies so that the management of commercial species takes the necessary measures to protect those species that are threatened due to the exploitation of the commercial species.

Sustainable aquaculture and fisheries management

The fisheries industry is under great pressure due to diminishing resources in recent years, and due to new initiatives for sustainable development being introduced. The EU Common Fisheries Policy (CFP) was significantly strengthened with the 2002 Reform, by which existing regulation measures were extended and supplemented with a number of new initiatives. The objective of the CFP Reform is to create a balance between fishing capacity and fishing stocks.

Status

Fishing directly impacts fish stocks. The impact is managed via fisheries rules such as fishing quotas and technical measures, which put a limit to the quantities of fish that may be taken out of the sea by fishing and make sure only adult fish stocks are fished. The rules are based on comprehensive and internationally organised biological advice.

Besides fisheries, natural and other man-made factors also impact the size, composition, and development of fish stocks, and have repercussions on the ecosystems fish are a part of. Continued development of the system for scientific advice concerning these impacts on fish stocks is needed.

Some fish stocks have suffered overfishing, which has led to very low stocks. Moreover, there are unintended by-catches and discards, and the EU fleet is still oversized compared to available resources.

General objectives

Overfished stocks must be recovered as quickly as possible through specific management plans. Over time, the principle of multi-annual management plans will gradually be extended to all stocks, but to begin with it will be applied to those stocks that are most threatened with unsustainability.

Regulation of catch and fishing efforts will – as in the case of cod in the North Sea – be complementary to Total Allowable Catch (TAC)/quota management for stocks being recovered. A long-term management plan for cod in the North Sea entered into force on 1 February 2004.

Capacity

Subsidies for fleet renewal will end by 1 January 2004. Until then, aid to capacity renewal will be phased out through the removal of more capacity than is introduced for vessels over 100 GT. The implementation of special scrapping of vessels has also been adopted. Moreover, no aid must be given which undermines sustainable fisheries.

Data collection and scientific advice

Collection and quality assurance of data must be improved on a regular basis. This applies to data on fish stocks, fisheries, targeted and non-targeted species, and ecosystems. Improved data will enhance the basis for scientific advice and thus for making decisions.

Selective fishing, discards and by-catches

The EU Fisheries Council will encourage the development of fishing methods that minimise the negative impact on the environment. On the basis of analyses of reasons for discards, and the biological and economic consequences of discards, the Fisheries Council will encourage the development of selective fishing equipment. It appears from the Commission's communication on a Community action plan to reduce discards of fish that such a plan will provide a general overview of discards, analyse the reasons behind discards, point out biological and economic consequences, and examine and clarify possible solutions to the problem.



In 2003, the European Commission submitted a proposal on regulation of fisheries in order to reduce by-catches of harbour porpoise. The national action plan for reducing unintended by-catches of harbour porpoise is expected to be revised in 2004. Denmark supports common EU regulation in this area.

Fresh-water fishing

Today, fresh-water fishing in Denmark is mainly recreational. The Government will also take initiatives to create ecological sustainability in this field. The Government therefore intends to phase out the release of domesticated trout (bred in freshwater fish farms) in Danish watercourses over a period of some years. After the phase-out, all new fish released must be bred from fish living in the wild. The Government moreover intends to gradually transfer appropriations for release of fish to restoration of watercourses.

Mussels

The Ministry of Food, Agriculture and Fisheries has set up a Mussel Committee to promote environmentally and economically sustainable exploitation of mussels and oysters in Danish waters. Amongst other things, the Committee will come up with recommendations in order to ensure cohesive management of these resources.

Aquaculture

Status

Aquaculture is responsible for about 3 per cent of total Danish fisheries production but only 22 per cent of the value. This corresponds to the value of cod fisheries, until now the most important of Danish fisheries for direct human consumption. Due to environmental

regulations, quantities have remained virtually unchanged since implementation of the first Action Plan for the Aquatic Environment.

The Government's objective is for the Danish aquaculture industry to have proper production methods which favour both the environment and the commercial profit of the industry. Moreover, regulations should be made more simple and comprehensible.

Freshwater and seawater fish farms must be environmentally approved, and marine farms must live up to similar requirements. Regional plans by regional authorities cover e.g. international nature conservation areas and provide guidelines and targets for the quality and use of Danish waters. An environmental impact assessment is required where fish-farming facilities are assumed to have considerable impacts on the environment.

Bypass flow and other fauna corridors in connection with freshwater fish farms will be established in order to improve the physical and biological conditions of watercourses. Similarly, restoration of watercourses and fish management will be carried out. Water consumption and discharges in connection with inland fish farming will be reduced through increased recirculation and use of cleaning methods, as well as through use of water from wells and drainage, for instance establishment of model fish farms. It will, thus, be possible to remove watercourse dams, and to significantly enhance the conditions for natural flora and fauna in stretches of the watercourses affected by fish farming.



The fulfilment rate for targets for the quality of water downstream from freshwater fish farms has increased from 14 per cent in 1989 to 56 per cent in 2000. Since 1987, discharges of nutrients from freshwater fish farms have been halved, and discharges from seawater fish farms have been reduced to about two thirds of earlier rates. Existing Danish marine fish farms comprise 1-2 km², or 0.002 per cent, of Danish waters. Furthermore, they contribute less than 0.1 per cent of total additions of nutrients to coastal Danish waters.

The revision of the Common Fisheries Policy

In January 2003 in connection with the Common Fisheries Policy Reform, the Agriculture and Fisheries Council concluded that the role of aquaculture is becoming more and more important. The Council approved the Commission's strategy for sustainable development of European aquaculture, which prescribes an annual growth of 4 per cent. The Council pointed out that this may necessitate e.g. adaptation of existing environmental legislation, plus harmonization of the implementation and enforcement of the rules within the area.

National efforts – nature-friendly aquaculture

From 1 April 2005, the water flow near fish farms must always be at least half of the minimum average water flow in the stream, and new approvals for catchment of surface water will be granted for a maximum of 10 years at a time. Fauna corridors will be secured via watercourse restoration, establishment of bypass flow etc.

The Ministry of the Environment is implementing a two-year test scheme for “model inland fish farms” where the effect of cleaning methods will be measured and documented in order to serve as a basis for sustainable expansion of production. The objective is to regulate discharges rather than fodder.

The Committee on Marine Fish Farms has presented a number of recommendations aimed at reducing the risk of environmental impacts from marine fish farms, including recommendations regarding the establishment of fish farms in areas with large exchanges of

water; calculations of spreading in connection with the assessment of environmental impacts and possible new sites for fish farms; securing against depletion of fish; and regarding a standardised calculation and monitoring model for documentation of nutrient additions.

The Mussel Committee will encourage sustainable and economically sound exploitation of mussels and oysters in Danish waters, including via farming. Before 1 May 2004, the Committee will provide the Minister for Food, Agriculture and Fisheries with recommendations, with a view to ensuring e.g. cohesive management of these biological resources.

Economic incentives to environment-improving measures will be in accordance with the Government's targets for Danish aquaculture and with the initiative: Making Markets Work for Environmental Policies – Achieving Cost-effective Solutions.

Species requiring special efforts

According to the Convention on Biological Diversity we are committed to protecting species, including their genetic variants. In this context, it is vital that the habitats of plants and animals are preserved. However, in a number of situations it is equally important to make an effort to counter present or potential threats. This includes for example invasive species driving away indigenous species, the risk of oil pollution, and /or animals being killed due to road traffic etc. Genetically modified organisms (GMOs) will be meticulously assessed before being released into the environment.

The Government will make sure to prepare plans for the management of species, and groups of species, which have been selected from a set of detailed criteria based on international obligations, degree of rarity, ecological key role, or important socioeconomic and/or nature-management issues. Such plans may also include wild relatives to crop species.

Furthermore, the Government will make sure to disseminate knowledge to the public about endangered, vulnerable, and rare species, as well as national species that Denmark is internationally responsible for, as part of the overall target of local commitment and ownership.

Conservation and sustainable exploitation of genetic resources

The Government will make sure that genetic resources of rare wild species or populations are preserved through the combination of species and habitat conservation, including incorporating genetic aspects into species management plans. The Convention on Biological Diversity distinguishes between *in-situ* conservation of species in their natural surroundings, and *ex-situ* conservation of species in e.g. botanical gardens and zoos or in gene banks. *Ex-situ* conservation may be used as a supplement to *in-situ* conservation when dealing with endangered species.

The Government will intensify its cooperation with the Ministry of Food, Agriculture and Fisheries and the Ministry of the Environment in order to ensure efficient coordination of the registration and conservation of genetic resources in Denmark. Who will be responsible for conservation will be clarified, as will the need for systematic collection of genetic resources. These efforts should at the same time provide an overall view of relevant collections from *inter alia* museums and NGOs. Considerations for preservation of genetic re-



sources may also form part of the regional nature planning, with a view to specific management or restoration of the species.

Work is being carried out under the Convention on Biological Diversity to establish a Danish centre for “Global Strategy for Plant Conservation”. Such a centre would be able to look closer into problems pertaining to the sowing of wild Danish species, which may influence nature as a scientific frame of reference and as an environmental indicator.

In 2003, the Ministry of Food, Agriculture and Fisheries presented a strategy for the conservation of farm animal genetic resources. This strategy was followed up by a new Committee on National Genetic Resources. With regard to plant genetic resources within agriculture, in 2004 the Ministry of Food, Agriculture and Fisheries is working on a strategy and action plan covering domesticated species as well as their wild counterparts. Denmark is taking part in international cooperation, e.g. in the Food and Agriculture Organisation of the United Nations (FAO). In spring 2003, the Danish Parliament agreed to ratify the FAO International Treaty on Plant Genetic Resources for Food and Agriculture. Coordinated ratification of the Treaty is being aimed at in all EU countries.



The Convention on Biodiversity serves as the foundation for the legally binding FAO Treaty. The objectives of the Treaty are conservation and sustainable utilisation of plant genetic resources for food and agriculture as well as a fair and proper sharing of the benefits achieved from utilisation of these resources. The Treaty establishes a special system, which will facilitate access to the plant genetic resources and make sure there is an equal sharing in connection with use of these resources. The system covers plant genetic resources of a number of specific plant families which the member countries are committed to making available.

Nordic cooperation is important in the genetic resources field: e.g. a large part of the *ex situ* conservation of Danish plant genetic resources for food and agriculture is managed by a common Nordic institution, the Nordic Gene Bank.

On the basis of a report instigated by the Nordic Genetic Resources Council, and work carried out within FAO, Denmark will make sure there is access to and sharing of benefits in connection with use of plant genetic resources. Consumers of genetic resources, museums, interest organisations, gene banks, research institutions, and other relevant parties, will be invited to take part in this work.

Work on availability of access and benefit sharing in connection with the use of the wild relatives of domesticated species will also be of general importance to wild species.

Within the area of forests, the Strategy for Natural Forests from 1992 aims to preserve the biological diversity of Danish forests, including the genetic resources contained within them. Further to the Strategy for Natural Forests, the Ministry of the Environment in 1994 presented a Strategy for the Conservation of Genetic Resources of Trees and Bushes in Denmark. This strategy primarily aims at *in situ* conservation. Moreover, a network of gene conservation populations is being designated on land owned by the Ministry of the Environment. Designation is expected to be complete in 2004. *Ex situ* conservation of genetic resources of trees and bushes in Denmark is managed through cooperation between the Ministry of the Environment (the Forest and Nature Agency and the Danish Centre for Forest, Landscape and Planning) and the Arboretum (the Royal Veterinary and Agricultural

University under the Ministry of Science, Technology and Innovation). This happens through use (refinement and seed sources) as well as through clone archives and arboretums etc. Botanical gardens can contribute to the conservation of rare and endangered species via *ex situ* storage of tissue cultures or living, cultivated plants in seed and gene banks. Denmark contributes to the development of conservation plans for endangered tropical tree species and populations in a number of developing countries via the Danida Forest Seed Centre.

Management of invasive species and GMOs

Invasive species

Efforts to prevent the introduction of alien species in nature will be strengthened.

The Government will work to ensure that problems regarding introduced or invasive species are followed up within the EU as quickly as possible. This will be as follow up to the relevant guidelines adopted in the Convention on Biological Diversity in order to coordinate initiatives taken in other international contexts such as within the IPPC (International Plant Protection Convention), CITES, the Bern Convention, IMO, the OSPAR Convention, and HELCOM. Denmark has also been instrumental in the development of a convention about dead freight in ships, which has significance for the introduction of possible invasive species.

The situation concerning invasive species will be monitored intensely at national level. In order to improve local involvement, knowledge about invasive species, which is being collected by nature organisations, regional and local authorities, will be an integral part of overall nature monitoring and nature management of invasive species. Moreover, specific management plans for selected problematic species or groups of organisms will be prepared when relevant. In this regard, the Government hopes that nature organisations, land owners, and local initiatives will be integrated systematically in work to control and combat invasive species. The authorities will continue to coordinate work and disseminate information about invasive species.

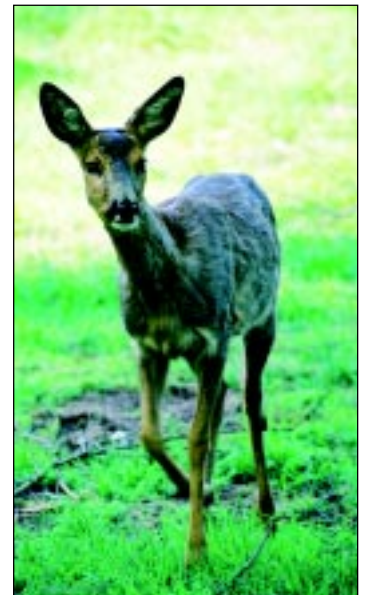
Before 2010, existing legal and non-legal measures will be analysed in order to establish whether they are adequate in relation to invasive species.

A working group will be established involving representatives from relevant authorities and organisations and relevant businesses. The task of the working group will be to elucidate current regulations and administrative practices in all forms of release of animal and plant species in Denmark. Detailed guidelines and proposals for new and clearer regulation will be prepared on the basis of the work of the group. As part of its work, the working group should assess whether it is possible to identify plant and animal species, which must not be released without prior approval.

GMOs

The Government will make sure that administration of the area of gene technology remains preventive. This means that any specific application of a genetically modified organism must be subject to a risk assessment and formal approval must be obtained before any activity may set in motion.

Denmark ratified the Cartagena Protocol on Biosafety in 2002. The Cartagena Protocol is a supplementary agreement of the parties to the Convention on Biological Diversity. The objective of the Protocol is to guarantee an adequate level of protection in connection with



transboundary movement, handling and use of living modified organisms (LMOs); that is organisms created by help of modern biotechnology, which, in principle, means 'living GMOs'. These EU rules will enter into force in spring 2003 and the first meeting of the parties will be held in February 2004.

Less dead animals

A number of species is on the decline due to high mortality rate caused by improper management or by conditions, requiring renewed attention.

A working group under the Ministry of the Environment with participants from authorities, organisations etc. put forward an action plan in 2002, which aims at reducing the number of animals killed on the roads. The Ministry of Transport and the Ministry of the Environment are working on implementation of the plan, e.g. by establishment of fauna corridors in connection with road systems.

The idea is to examine the need for a restriction of the rules regarding the introduction from abroad of animal species caught in the wild in order to make sure that individual animals introduced originate from species and populations which are managed according to the principle of sustainability. At the same time, the need for a restriction of the requirements related to transport of animals will be examined, so as to reach an outcome where fewer animals die during capture and transport.

Hunting of huntable game and game birds is relatively intense in Denmark. However, according to assessments it is possible to sustain the intensity of hunting, taking into account the size of the different populations of game animals. Hunting seasons and methods will be regulated via the Hunting and Game Management Act. In pursuance of this Act, a considerable number of wild game reserves has been established in recent years, which is particularly beneficial to migratory and hibernating populations of waterfowl. A campaign to reduce the number of woundings has shown positive results in recent years and will therefore be continued to achieve further reductions.



*Increased public awareness
of and joint responsibility
for nature*

10

Increased public awareness of and joint responsibility for nature

Public commitment to sustainable management and protection of nature is crucial if we are to reach the desired results. Public commitment is a prerequisite for creating broad understanding of the way nature works, its fragile state, and the possibilities for ending the decline in biodiversity. It is therefore essential that we disseminate knowledge and educate the public about nature, its resources, and biodiversity, if an understanding of the complicated interconnections in nature, and between nature, man and society, is to become common knowledge. One of the most significant prerequisites for encouraging nature awareness among the public is to improve the public's opportunity for experiencing nature and outdoor recreation.

Involving the public

According to the Aarhus Convention, the public, and industries dependent on nature, must, as far as possible, be involved in the management of nature and in the implementation of this Action Plan.

Future national parks will serve as demonstration sites for testing different measures to give animals and plants larger, cohesive areas, in which to roam. Magnificent and characteristically Danish nature should be available to the Danish public, and the objective of work on pilot-project areas is to make sure local commitment becomes embedded in future natural parks. In this respect, the Government will seek to create a balance between, on the one hand, the activities and growth of nature, and, on the other hand, the activities and growth of industry and tourism.

An integral part of the Ministry of the Environment's management of public areas is to make a broad array of nature and outdoor recreation activities available to especially children and young people, and at the same time take into account the significance of these areas to biodiversity. Nature and outdoor recreation activities will be expanded as part of the Ministry's welfare profile and in close cooperation with local citizens, clubs and associations etc.

Similarly, public access to nature will be expanded through voluntary schemes in productive cooperation between owners and users of natural areas, while taking into account the areas' significance for biodiversity. Public knowledge about the rules of conduct in nature must be improved through increased information.

Biodiversity, economy and welfare

The economic value of recreation is becoming increasingly recognised. Both in relation to Danes as well as in relation to the many tourists visiting Denmark each year. More or less all Danes make regular use of nature. Similarly, the qualities of the Danish landscape attract many tourists from abroad each year. In other words, outdoor recreation means good

quality of health and life and is thus of great value to residents and tourists alike. The Government therefore believes that both the costs and the benefits of our nature policy should be examined, and that these aspects should be part of decision-making processes. It is equally important to shed light on the commercial consequences, including consequences for tourism and outdoor recreation, which may follow from plans, programmes, and construction projects within the environment and nature areas.

The use of socioeconomic environment analyses is in line with the Government's change of course with regard to its environmental policy; the Government's principle of "Making markets work for environmental policies. Moreover, such analyses will facilitate decisions about priorities and cost-effective solutions in environment efforts.

New partnerships

The Government will foster new partnerships between the private sector and the public sector where the private sector can help carry out projects. Such projects, of course, will need support from local citizens as well.

There are many local-community nature projects, which may serve to improve the biodiversity of natural areas in people's close neighbourhoods. Such projects include taking care of small meadows and grassland areas, water holes, ponds or plantations.

In addition, there is local Agenda 21 work at municipal level, which, among other things, deals with biodiversity. These efforts can be improved scientifically in the years to come. The Government will instigate possible pilot projects in both rural and urban municipalities.

Teaching biodiversity

According to the National Strategy for Sustainable Development, Denmark is committed to integrating the concept of sustainable development in all future adjustments of its education system. In the same way, Denmark is committed under the Convention on Biological Diversity to disseminate knowledge and information that will bring about public awareness and understanding of the importance of biological diversity in nature. Thus, biodiversity and nature conservation must be part of all information about nature.

Biodiversity and nature conservation is therefore thematically integrated in all relevant subjects at all levels in the Danish education system. This applies to the Folkeskole (the Danish Primary and Lower-Secondary School), under the Act on the Folkeskole, and will be worked into the implementation of the forthcoming reform of the Gymnasium (the Danish Upper-Secondary School Reform).

Work is in progress to identify new indicators for measuring the dissemination of the concept of sustainable development in the education sector. The Act on the Folkeskole provides opportunity for the individual school to design more flexible teaching, which in turn will increase the opportunities for using the teaching resources of nature centres and science centres to a higher degree.

For upper-secondary education programmes, the overall objective of the teaching is to heighten the student's environmental awareness. In connection with a reform of the youth education programmes, an agreement was adopted in 2003 to strengthen the natural sci-



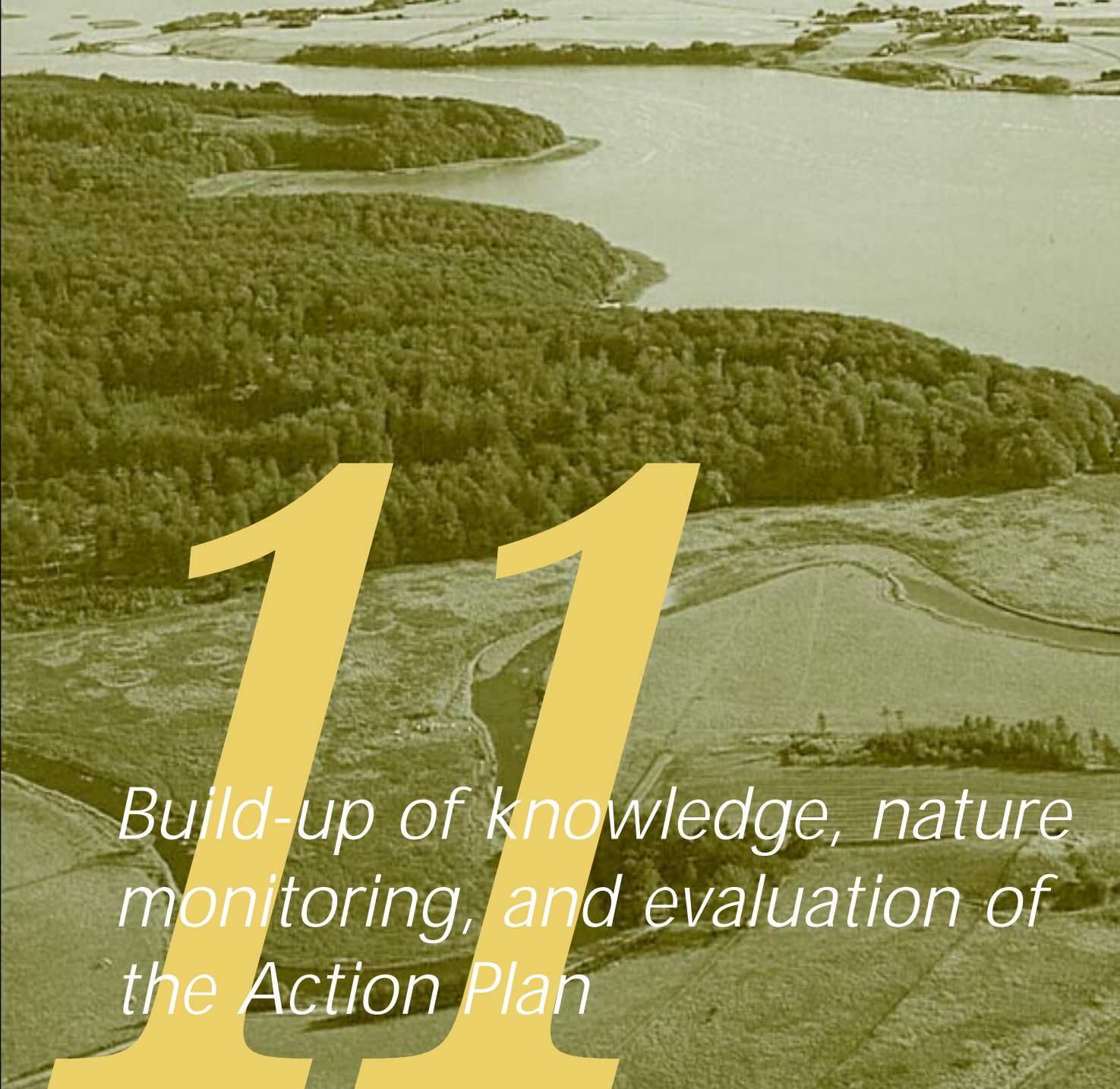
ences and to enhance the students' knowledge of nature via more opportunities for cooperation between nature interpreters and gymnasiums.

The Ministry of Education has provided support for and placed great priority on the development of teaching methods and teaching of subjects about nature and the environment, and will continue to do so in future.

Information and nature interpretation for all

The Nature Interpretation Scheme will be continued and further improved as a tool to promote increased awareness, understanding and joint responsibility for nature. The Government will encourage nature interpreters to disseminate knowledge about the Convention on Biological Diversity, and to explain the significance of local nature for international biodiversity. An important tool in this regard is the 10 principles for promoting sustainable development via nature interpretation. These principles were adopted at the International Ranger Federation's Fourth World Congress in 2003 following a Danish initiative.

Nature Schools will be retained and expanded with new measures pertaining to biodiversity, and new schools or centres will be established where needed, e.g. in relation to the proposed national parks.



Build-up of knowledge, nature monitoring, and evaluation of the Action Plan

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Build-up of knowledge, nature monitoring, and evaluation of the Action Plan

Build-up of knowledge

Research and development will ascertain that we have a good foundation for making decisions, and that nature and environmental policies are being based on scientific knowledge. The Government will expand basic knowledge build-up and nature monitoring to include knowledge on how to preserve and exploit nature in a sustainable manner, and how to improve our knowledge about solutions that ensure we get our money's worth in terms of more nature. The Government will also increase work on socioeconomic analyses of costs and benefits in connection with conservation of biodiversity. Several general requirements for knowledge build-up are linked to the specific initiatives of this Action Plan:

- expansion of fundamental knowledge about occurrence and distribution of habitats and species, and development of individual indicators for status and development processes
- analyses of the link between biodiversity and eutrophication in terrestrial and aquatic ecosystems and possibilities to reduce eutrophication,
- development of agricultural practices that safeguard high environmental standards and biodiversity
- development of methods to reduce the loss of nutrients from agriculture
- establishment of a research programme for organic farming
- development of models for elucidation of operational and socioeconomic consequences of different measures, including voluntary agreements
- cross-disciplinary and holistic analyses of opportunities and conflicts in connection with conservation and land use
- expansion of knowledge about public and tourist consumption patterns regarding use of nature and outdoor recreation.

The individual, specific need for knowledge build-up must be assessed and described in more detail by institutions under the Ministry of the Environment and the remaining relevant research institutions. The Government places great emphasis on disseminating the existing knowledge on the different subject areas as widely as possible so that as many interested people as possible can get insight into the results. The knowledge base should also include the mapping and surveying activities made by green organisations.

Nature monitoring

Overall nature and environment monitoring will develop and improve our understanding of trends in biodiversity and whether nature conservation efforts are producing the results desired. The concerted work of interest organisations and the Agreement Committee of the NOVANA programme will map possible ways of incorporating the data collected by nature organisations, authorities, counties, and municipalities in overall nature monitoring and management efforts.

In this way the Government will ensure that overall nature and environment monitoring contributes to the necessary overview of biodiversity trends in Denmark, including species in general and species, which Denmark is committed to protect. As part of the work on the Red List, the Ministry of the Environment will organise an extensive symposium on the current state of Danish nature in 2004/5.

The Inter-Ministerial Working Group

The Inter-Ministerial Working Group will carry out a mid-term evaluation of the implementation of the Action Plan in 2006/07. The Government's Inter-Ministerial Working Group on Biodiversity will monitor the implementation of the different elements of the Action Plan and prepare annual status reports. These reports will also make up part of Denmark's reporting to the meetings of the Conference of the Parties to the Convention on Biological Diversity.

The mid-term evaluation will serve as basis for decisions concerning adjustments to the Action Plan and its continued implementation until 2010 when a final evaluation of target performance will be carried out.

A system of targeted and comprehensible indicators, which show the general trend in certain main groups within biodiversity, will be defined via collaboration between the institutions and interest organisations involved.





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Legislative initiatives and financing

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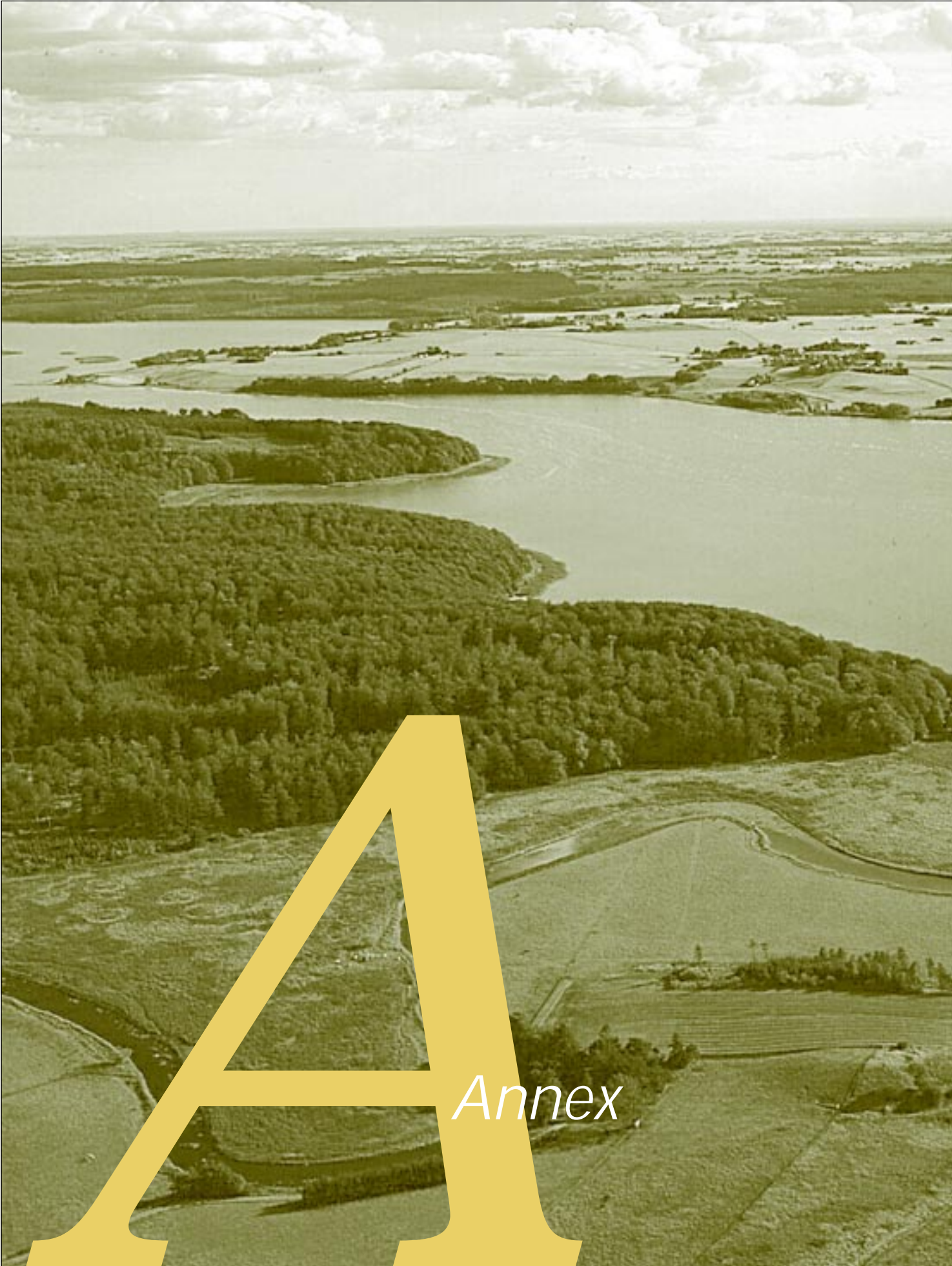
Legislative initiatives and financing

Results the Government has already achieved include: work on the establishment of national parks, the publication of a national forest programme, and the designation of 254 international habitat areas. So as to live up to Denmark's international commitments within nature conservation, the Government has presented a number of bills regarding the further implementation of the Bird Protection Directive, the Habitats Directive, and the Water Framework Directive.

These Directives have been or will be implemented into Danish legislation via the Act on environmental targets etc. for wetlands and international nature conservation areas, via a proposed new Forest Act and via proposed amendments to the Nature Protection Act.

A key element is that efforts to safeguard or restore a favourable conservation status for the different natural areas and habitats within international nature conservation areas must be based on nature management plans that make sure efforts are prioritised and well-founded scientifically. In the proposal for a new Forest Act, planning pertaining to forests is presumed to be the responsibility of the Minister for the Environment, whereas the remaining planning pertaining to international nature conservation areas is presumed to be the responsibility of county councils. Moreover, the procedures applying to county councils' nature planning according to the Environmental Target Act, also apply to the councils' water management, cf. the Water Framework Directive. The main parts of the required management plans must be prepared before 2009.

Expenses pertaining to the implementation of the Action Plan will be paid within the existing financial framework of the Ministry of the Environment, Ministry of Food, Agriculture and Fisheries, and remaining ministries. There are also possibilities for EU co-financing and partnerships with private enterprises.



Annex

Annex A:

Overview of the role and function of the different Danish ministries in the area of biodiversity

The Ministry of the Environment serves as coordinator of the implementation of the Action Plan for Biodiversity and is responsible for ensuring compliance with the Strategic Plan for the Convention on Biological Diversity. The Ministry of the Environment is the national contact authority to the Convention on Biological Diversity and is responsible for national coordination and international negotiations within this area.

Both as administrative and land-use authority, the Ministry of the Environment is responsible for the development and realisation of a number of initiatives. These comprise e.g. initiatives intended to reinforce the conservation and restoration of endangered natural habitats and species, as well as the genetic variation within wild species. In this context, a special aim is to achieve or maintain favourable conservation status for designated areas covered by the EU habitat and bird protection areas.

Furthermore, the Ministry of the Environment is responsible for cross-ministerial initiatives within the Ministry's area, such as development or improvement of various measures, including improved use of economic instruments and securing public joint-responsibility and involvement in the realisation of the Action Plan. There is a need for nature and environmental monitoring supported by suitable indicators, and a number of new subjects, such as e.g. national parks and near-nature forestry, will undergo special assessments.

At international level, the Ministry of the Environment will contribute to guaranteeing that the Convention on Biological Diversity plays a guiding role when biodiversity issues are negotiated between countries. The Convention is also to encourage cooperation between relevant international conventions and other processes in the field of nature. One such example would be work to protect areas that will be dealt with at the Meeting of the Conference of the Parties to the Convention in March 2004. Moreover, the Ministry will work towards creating more binding international cooperation on forests and sustainable forestry through international agreements and conventions.

At national level, the Ministry of the Environment manages several of Denmark's most valuable natural areas through the Forest and Nature Agency and through the state forest districts. A central objective of the management of these areas, which cover a total of 188,000 ha of land, is to contribute to preserving and restoring biodiversity in accordance with the 2010 target. The dissemination of information about nature and nature interpretation, in combination with efforts to improve the public's opportunities for experiencing nature, are also central to the Agency's land-use activities.

The Ministry of Food, Agriculture and Fisheries, and the Ministry of the Environment have primary responsibility for nature management in Denmark. The scope and nature of the Ministry's responsibility are defined in agriculture and fisheries legislation – areas which in many regards have relevance for the state of biodiversity on Danish arable land and at sea. The Ministry of Food, Agriculture and Fisheries also administers a number of important EU co-financed subsidy schemes targeted towards different forms of environment-friendly farming, totalling around 260,000 ha, cf. Chapt. 6.

Furthermore, via the National Land Funds, the Ministry has an agricultural land pool (currently 9,000 ha), and in some instances manages areas with special natural assets such as Margrethe Kog in South Jutland. The Directorate for Food, Fisheries and Agri Business administers several land consolidation cases in relation to nature restoration projects (now mainly under the Action Plan for the Aquatic Environment II), and in relation to afforestation projects. The use of the services under the Directorate has been an essential factor in restoring and establishing new natural areas over the past 10-15 years, while at the same time enabling many farmers to solve structural problems pertaining to their property.

The Ministry of Food, Agriculture and Fisheries is moreover responsible for conservation and sustainable use of plant genetic resources within farming and farm animal genetic resources, *including* coordination of Danish efforts in international cooperation in these areas within FAO and the EU. The Ministry also takes part in Nordic cooperation on genetic resources and in the European collaborative programme on plant genetic resources, ECP/GR.

Within fisheries, the Ministry of Food, Agriculture and Fisheries administers fisheries in the sea and in fresh waters. The purpose of the EU Fisheries Policy is to ensure a sustainable development within fisheries, and the objective is to create a balance between fishing capacity and fishing stocks. The objective of the Danish Fisheries Act is to make sure there is a sustainable basis for commercial fisheries and associated industries and provision for recreational fishing. This will be done via management that ensures conservation and facilitation of living resources in salt and fresh-waters, and via protecting other animal and plant life.

The Royal Danish Ministry of Foreign Affairs. The Ministry channels significant assets to projects in a number of cooperation countries via Danish International Development Assistance. The purpose of these projects is to encourage measures that preserve nature and biodiversity, and to encourage sustainable management of natural resources commensurate with targets laid down in the Convention on Biological Diversity. In 2003, biodiversity conservation projects in e.g. Botswana, Mozambique, Tanzania, Bhutan, Thailand, Malaysia, Nicaragua, and the forest seed centres in Cambodia, Laos, and Vietnam received Danish international development assistance. Also Denmark's multilateral assistance favours nature conservation to a significant extent.

In the developing countries, the material needs of most parts of the poor population are covered via use of biological resources, and where this use is not sustainable, the environment and nature are worn down and biological diversity destroyed.

The main priority of Danish development assistance, including environmental assistance, is to combat poverty and contribute, directly, to minimising the loss of biodiversity. Encouraging sustainable use of natural resources and biodiversity can serve as a significant tool in combating poverty. In the Convention on Biodiversity, this mutual dependence is expressed

in the combined consideration for, on the one hand, nature protection, and on the other hand, economic development.

Therefore the Convention's objectives of preserving biodiversity, utilising it in a sustainable manner, and securing a fair and appropriate distribution of its resources have great importance within development and environmental assistance. This was emphasised with the decision to reduce substantially the loss of biodiversity before 2010, taken at the World Summit in Johannesburg in 2002.

Danish efforts to secure sustainable use of natural resources in general via development assistance and environmental initiatives include a number of work areas covered by the Convention. These include development of national strategies and policies, the establishment of governance systems, monitoring of biodiversity, and management and operation of natural areas focusing on protection and sustainable use. Efforts should be viewed in context with other initiatives, including implementation of the Ramsar Convention and the Washington Convention (CITES). Similarly, programmes to ensure an integrated management of water resources, which in most cases also means the preservation of ecological quality in e.g. watercourses and aquatic fringe areas, will be implemented.

The Ministry of Defence owns exercise areas that are home for some of the most important biological natural assets in Denmark. Since it adopted its first environment strategy in 1993, the Ministry has therefore considered protection and conservation of these natural assets one of its foremost objectives. The Ministry of Defence has ensured this objective via management plans for all its exercise and training areas (totalling about 32,000 ha). Moreover, the Ministry has carried out nature restoration projects at Oxbøl firing range and exercise area and elsewhere.

Via the Road Directorate, the National Rail Authority, the Danish Coast Directorate, and the Civil Aviation Administration, *the Ministry of Transport* has overall responsibility for road and railroad planning, coast protection, fixed installations in the marine territory, and for the establishment of airports.

In their planning, the Ministry has furthered a number of nature conservation considerations e.g. in connection with road layout, bridge connections across the Great Belt and the Sound, and the establishment of fauna corridors. Furthermore, coast protection initiatives have been made more nature friendly over the years. The Ministry of Transport manages certain natural areas on the west coast of Jutland; about 10,500 ha in all.

As a general rule, the Ministry of Transport will strive to guarantee the necessary mobility while making sure to design the physical infrastructure so that the environmental impact from increased mobility is minimised as far as possible.

The Ministry of Education is making sure that biodiversity and the concept of sustainability are covered by teaching at all levels in the Danish education system. The Convention on Biological Diversity means we have a direct duty to make sure these subjects are promoted in teaching.

The Danish Ministry of Economic and Business Affairs is responsible for a number of overall considerations aimed at encouraging environmentally sustainable business development. Furthermore, the Ministry has a special responsibility for guaranteeing development

within tourism, which takes account of tourist demands in terms of good opportunities for experiencing nature, and at the same time respects important nature protection interests linked to natural and environmental assets.

The Ministry of Ecclesiastical Affairs. The Danish National Church owns a total of approx. 17,000 ha of land containing various natural assets. Churchyards with old stone walls and church towers constitute homes for species that are otherwise rare in Denmark. The churchyard stone walls are listed under the Danish Nature Protection Act, and the use of pesticides in churchyards is prohibited.

There are around 2,000 churches in Denmark. Of these, 1,650 date back to the Middle Ages. Traditionally, Danish churches have had a prominent place in the Danish landscape. They are protected by special construction layouts under the Danish Nature Protection Act. This protection concerns building activities that require special approval. Apart from this, the regional plans often contain guidelines for the safeguarding of churchyard landscapes.

The Danish Ministry of Culture administers legislation on fixed ancient monuments (burial grounds, ruins, earth and stone walls etc.), which are often homes for unique biodiversity. Moreover, the Ministry administers the Museum Act, the Consolidated Listed Buildings and Preservation of Buildings and Urban Environments Act, and some provisions in the Planning Act. The Cultural Heritage Agency maintains the state's interest in planning activities pertaining to areas of cultural-historic significance. It also provides guidance within the field of cultural and natural heritage. The maintenance of cultural-historic interests and safeguarding natural assets often converge. On this background, the Cultural Heritage Agency has the opportunity through activities related to nature protection to cooperate with other authorities on listing land areas and nature restoration.

The Ministry of Justice is responsible for regulating the approval and supervision of zoo facilities etc. These facilities may function as important breeding centres for endangered species, cf. duties regarding ex-situ conservation of species. The Ministry of Justice is generally responsible for legislation concerning animal welfare in Denmark. In this connection, the Ministry has issued a series of rules of significance to biodiversity, such as rules on private ownership of exotic pets and the sale of such animals by animal dealers.

Annex B:

The Government's ten-point programme for implementation of the European Habitats and Bird Protection Directives

- 1) Designation of supplementary habitat and bird protection areas, 254 habitat areas and 112 bird protection areas in total, including substantial expansions in the Kattegat.
- 2) Encouragement of counties to include nature management in their regional plan for 2005, inspired by a catalogue of ideas on nature planning.
- 3) Issue technical criteria for favourable conservation status:
 - a) assistance in case processing and establishing a uniform basis for municipal and county consequence and environmental impact assessments
 - b) basis for nature management and for specific initiative plans for species and natural habitats
 - c) basis for the national monitoring programme, NOVANA
 - d) basis for implementation of legal requirements for setting up conservation targets (the Nature Protection Act and the Forest Act).
- 4) Monitoring commitments to be incorporated in the national monitoring programme, NOVANA.
- 5) Legislative amendments contributing to fulfilling the commitments under the Directives:
 - a) the Forest Act
 - b) the Nature Protection Act
 - c) The Act on environmental targets etc. for wetlands and international nature conservation areas
 - d) landbrugsloven (the Agricultural Act)
 - e) lov om drift af landbrugsjorden (bill on management of agricultural land).
- 6) Extra funding for management of habitat and bird protection areas:
 - a) part of the extra DKK 50 million in the 2003 Finance Act
 - b) part of the extra funds provided in the 2004 Finance Act, cf. an agreement between the Government and agreeing parties in May 2003 regarding more forest and natural areas.
- 7) Action plan for biodiversity:
 - a) conservation of existing nature
 - b) targeting of nature restoration and other initiatives to establish new nature
 - c) clarification of unanswered questions concerning buffer zones.
- 8) Integration of aquatic and natural environments in the Plan for the Aquatic Environment III.

- 9) Increased focus on EU subsidy schemes for agriculture, forestry, and nature:
 - a) active use of set-aside schemes and implementation of guidelines for good agricultural and environmental condition
 - b) efforts aiming at NATURA 2000 sites will be made part of agro-environmental schemes (to be developed by a working group)
 - c) active Danish efforts to influence European Commission work on co-funding of NATURA 2000 commitments, based on the Commission's communication in autumn 2003 on NATURA 2000 funding
 - d) increased Danish focus on the EU "LIFE" scheme.

- 10) Nature management plans and binding programmes for NATURA 2000 sites:
 - a) in the context of the National Environmental Research Institute of Denmark's conservation criteria via nature management by counties
 - b) state guidelines, when the legal basis is in place.



