



NORWEGIAN MINISTRY OF
THE ENVIRONMENT

Summary in English: Report No. 21 (2004–2005) to the Storting

The Government's Environmental Policy and the State of the Environment in Norway

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approved in the Council of State on the same date.
(White paper from the Bondevik II Government)*

1 Environmental status 2005

1.1 A shared global responsibility

Norway is a wealthy country, and has the capacity and resources both to safeguard its own environment for future generations and to help other countries. We therefore have a special responsibility to play an active part in efforts to reduce global environmental problems and combat poverty. The rich part of the world cannot continue to base its prosperity on unsustainable resource exploitation. Further improvements in welfare and the quality of life must be based on non-material and human values. We must respect nature's tolerance limits and apply the precautionary principle in cases where there is a risk of serious environmental damage. And we must follow the polluter-pays principle, so that environmental costs are not transferred to neighbours, the community or future generations. These are global responsibilities that must be translated into local action.

1.2 The state of the environment in Norway

The previous white paper on the Government's environmental policy and the state of the environment in Norway was published in 2003. Since then, there has been relatively little change in the state of the environment in Norway. Nature is a large and complex system and changes slowly. The impacts of pressure on the environment often only become apparent after a considerable delay. We must also remember that although nature has a considerable capacity for repair and to withstand human pressure, this capacity is not unlimited. All life on earth is vulnerable to pressures such as pollution of air, soil and water. At present, many environmental trends are negative, both in Norway and globally.

New and improved knowledge shows that the environmental impacts of some types of pollution are more serious than previously anticipated. Climate change has proved to be a more acute problem than we had believed, and the first impacts are probably already becoming apparent. Hazardous

substances are becoming more widely dispersed in the environment and are found in more and more species, and also pose a greater threat than previously believed. Biodiversity is under pressure in Norway as well as other parts of the world. Wild salmon stocks in rivers and fjords have been threatened for many years. More recently, we have found that kelp forests are disappearing from parts of Norway's coastline. The area of mountain habitat available for wild reindeer is being reduced with increasing traffic and infrastructure development.

Even though the usual indicators of the state of the environment show little change over the past two years, the overall level of threat is rising. We are facing greater and more complex challenges. Environmental policy targets in several areas are becoming more difficult to achieve. The formulation of environmental policy must reflect these developments. This means that environmental policy for some of Norway's priority areas must be tightened up. In other areas, it will be sufficient to continue to apply the policy instruments in use today. As we work towards new policy instruments and approaches, we should also maintain the successful elements of current environmental policy.

The state of the environment and environmental trends vary from one area of environmental policy to another. There are positive trends for waste management, depletion of the ozone layer, radioactive pollution and to some extent outdoor recreation. In these areas, a number of the national targets are within reach. Consistent application of policy instruments over a period of some years has proved successful, and current policy will generally be continued.

There is a more mixed picture for acidification, local air quality and noise, and to some extent for biodiversity, eutrophication and the cultural heritage. Efforts to reduce acidification have yielded results, and conditions in lakes and rivers in the most sensitive areas have improved in the last 20–30 years. Nevertheless, emissions of acidifying substances are still too high. Action has also been taken to reduce inputs of nitrogen and phosphorus to areas where there are signs of eutrophication, but conditions do not appear to have improved sufficiently. Air pollution and noise are still serious problems, especially in urban areas and along main roads. The overall level of noise annoyance has remained more or less unchanged since 1999, despite improvements in vehicle technology and reductions in noise levels from railways and aircraft.

In some areas, including climate change, hazardous substances, biodiversity and the cultural

heritage, the overall trend is clearly negative, despite the results that have been achieved. Local eutrophication problems are also becoming more severe in a number of water bodies. One of the main reasons for these trends is that environmental policy instruments have not been effective enough either at national or at international level. Another important factor is that there are still gaps in our knowledge about various environmental problems, for example hazardous substances.

At global level, the rate of loss of biodiversity is comparable to what has previously been observed in connection with global natural disasters and rapid climate change. Biodiversity is under threat in Norway too, and the most serious threats are considered to be the conversion of agricultural land for other purposes and other changes in land use. A series of apparently insignificant developments may have cumulative effects that make it difficult for species and populations to survive and seriously impair the productivity of ecosystems. Development also results in habitat fragmentation, which makes conditions difficult for species that are dependent on large continuous areas for their survival.

The negative effects of the spread of invasive alien species to Norway are also becoming clearer. This problem may be intensified by climate change.

About 12 per cent of mainland Norway is protected under the Nature Conservation Act. Once the national park plan and the remaining county protection plans have been fully implemented in 2010, 13–14 per cent of the total area of the mainland will be protected. We should maintain a high tempo in these efforts in order to safeguard habitats that are endangered and vulnerable or important for endangered and vulnerable species, and to avoid damage to areas of high conservation value.

Norway's objective is to halt the loss of biological diversity by 2010. To achieve such an ambitious objective, it will be necessary to make use of effective policy instruments and ensure close cooperation between all sectors. Ensuring sustainable use of resources is of critical importance for the maintenance of biodiversity.

Many Norwegians take part in a variety of outdoor activities and consider outdoor recreation to be an important aspect of their lives. Natural conditions mean that Norway offers opportunities for many types of outdoor recreation. In addition, there is a general right of public access to uncultivated land, irrespective of whether it is privately or publicly owned. However, building and other forms of development in the coastal zone pose a

threat to public access in some areas, despite a long-standing prohibition on building less than 100 metres from the shoreline. The construction of holiday cabins, particularly in the mountains, can also reduce public access to the countryside. The increasing use of off-road vehicles has adverse effects on both outdoor recreation and biodiversity. In some areas this is reducing opportunities to enjoy the peace and quiet of the countryside. The policy instruments needed to safeguard the basis for outdoor recreation are largely in place, but they should be used more effectively and actively. There should be a stronger focus on implementing measures and targets for outdoor recreation in the coastal zone. Furthermore, the municipalities should become more aware that they need to play an active role in dealing with unauthorised barriers and other obstacles to free access in the coastal zone.

There has been a drop in the level of outdoor physical activity in recent years. Both children and adults are spending more and more time on physically less demanding indoor tasks and recreational activities. This has adverse effects on public health, as shown by the increase in various lifestyle diseases. Thus, promoting outdoor recreation is also a form of preventive health care.

There is growing awareness of the value of cultural monuments and sites and cultural environments. Nevertheless, more and more of the cultural heritage is being lost as a result of deliberate removal and destruction or because of inadequate protection and maintenance. The cultural heritage should therefore be more actively used in social development. The Government's cultural heritage policy is further described in a recent white paper (Report No. 16 (2004–2005 to the Storting)).

In recent years, action has been taken to reduce eutrophication in coastal waters and fresh water bodies. This problem is most serious along the coast from the border with Sweden to Lindesnes, the southernmost point of mainland Norway. Preliminary monitoring results indicate that there has been no reduction in the quantities of nitrogen and particulate matter in coastal waters. Further measures will be needed to achieve the target for nitrogen inputs.

Most of the fresh water bodies that are affected by eutrophication are near population centres and agricultural areas in Eastern Norway, near Stavanger and around Trondheim. There has been some concern about the ecological status of several river basins, such as the Vansjø-Hobøl river basin in Østfold county, but in general the ecological status of Norwegian river basins is good.

The largest discharges of oil to marine waters are presumed to be from land-based sources. The offshore petroleum industry is the largest ocean-based source of oil discharges.

The concentration of oil in produced water discharged by the oil and gas industry is below the limit value in the current legislation, but total discharges of produced water are expected to rise in the next few years. There is still uncertainty about the possible long-term impacts of the petroleum industry. The operating companies have drawn up plans for achieving the zero discharge goal by 2005 and are now implementing them. Good results have been achieved in a relatively short space of time by cooperation between the authorities and the industry.

The risk of acute oil pollution is likely to rise in the future, mainly because rising volumes of oil will be shipped through Norway's northern waters from Russia. The expansion of petroleum activities to new areas may also increase the risk of acute discharges.

Emissions and use of hazardous substances are considered to represent one of the most serious environmental threats today. The numbers of substances in use is very large, and in many cases we know little about their environmental impacts. The most dangerous substances are heavy metals and persistent organic pollutants. They are only slowly biodegradable, which is why they persist in the environment. They also have a high bioaccumulation potential, meaning that their concentrations increase along food chains. The long-range transport of hazardous substances to Norway and the Arctic is a continuing problem. Concerns are regularly raised about new types of chemicals, and in addition there are substances whose hazardous properties are well known, such as PCBs. For instance, brominated flame retardants were introduced in various products to reduce fire hazards, but have proved to have very harmful environmental properties.

Emissions of hazardous substances are still rising, and there are also major challenges involved in cleaning up areas that have been polluted by earlier emissions of such substances.

Effective application of policy instruments and good management routines have reduced the environmental pressures from waste generation, even though the quantities of waste generated are continuing to rise. However, there are still problems relating to greenhouse gas emissions from waste treatment and the quantity of hazardous waste generated. Efforts to apply policy instruments more effectively and increase the quantity of waste deliv-

ered for material and energy recovery are therefore continuing.

Climate change and the challenges it involves are more serious than was previously believed. The Intergovernmental Panel on Climate Change (IPCC) estimates that the mean global temperature will rise by 1.4–5.8 °C in the next 100 years. The IPCC has concluded that there is now new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities.

Preliminary results from the RegClim research programme indicate that there will be a mean temperature rise of between 1 and 2 °C in Norway from the period 1980–2000 to 2030–2050. The climate will become windier and wetter, and weather patterns will be generally more unstable. This will make infrastructure, buildings and economic activity more vulnerable to natural forces.

The degree to which temperature change results in changes in biodiversity will depend on the speed of change and how well species can adapt to a changed climate.

The Kyoto Protocol is the first step on the way to reducing global greenhouse gas emissions. However, far greater cuts in emissions from industrialised countries and restrictions on emissions from developing countries will be needed to prevent undesirable climate change.

In 2003, Norway's greenhouse gas emissions totalled 54.8 million tonnes CO₂ equivalents. They are projected to reach 64.5 million tonnes CO₂ equivalents in 2010 unless new control measures are introduced. The growth in emissions is mainly explained by rising emissions from the oil and gas industry and the transport sector. According to these figures, Norway's emissions in 2010 will be 16 per cent higher than the level required to meet its Kyoto commitment. This commitment is to be met through national measures, supplemented by use of the Kyoto mechanisms.

There is considerable long-range transport of pollutants to Norway. More than 90 per cent of acid deposition in Norway originates abroad. In the past 20 years, emissions of acidifying substances in Europe have been substantially reduced as a result of international agreements. Nevertheless, the pollution load will continue to be fairly high in the future, mainly in the southern counties of Aust-Agder, Vest-Agder and Rogaland.

Norway has undertaken ambitious commitments to reduce emissions under the international agreements on long-range transport of pollutants. The greatest challenge in the years to come will be to reduce Norway's annual NO_x emissions by

about 30 per cent by 2010, as required by the 1999 Gothenburg Protocol. This commitment means that Norway will have to make substantial emission reductions, particularly from shipping, the fisheries industry, land-based industry and electricity generation on the continental shelf. Measures to reduce emissions will also be needed in other sectors.

Norway has achieved the emission reductions required by the 1988 NO_x Protocol and the 1994 Sulphur Protocol. An agreement has been reached with the process industry on regulation of its emissions, and it is expected that this will also enable Norway to meet its commitment for the reduction of SO₂ emissions under the Gothenburg Protocol. Norway's current commitments under the VOC Protocol will be achieved in 2005–2006 as a result of new requirements for emission reductions during offloading and storage of crude oil offshore. These requirements should also ensure that Norway meets its commitment to reduce VOC emissions under the Gothenburg Protocol. Norway is expected to comply with its commitment to reduce ammonia emissions under the Gothenburg Protocol without introducing any significant new measures.

In towns and urban settlements, noise and local air pollution can cause substantial health and welfare problems. Although air quality in the largest towns in Norway has shown a positive trend in recent years, a large proportion of the population is at times exposed to high levels of air pollution.

The most important sources of local air pollution are emissions from road traffic and fuelwood use. More effective policy instruments will be needed to reduce emissions from these sources.

Noise is one of the major remaining environmental problems in Norway, and one of those that affects the largest number of people. About 1.7 million Norwegians are exposed to noise levels exceeding 50 decibels outside their homes. It has been calculated that about half a million people are annoyed or highly annoyed by noise. Noise from road, air and rail traffic accounts for almost 90 per cent of all noise annoyance, and road traffic alone for almost 80 per cent.

Because of the constantly rising volume of traffic, noise annoyance has remained almost constant over the past 10 years, despite improvements in vehicle technology. Projections suggest that unless further measures are taken to reduce noise, noise annoyance will only drop by about five per cent by 2010, mainly as a result of technological improvements of vehicles and aircraft. This means

that the national target for noise will not be achieved by continuing current policy.

Norway is responsible for management of parts of the polar regions, which are still some of the cleanest and best-managed areas of natural habitat in the world. Utilisation of the rich marine resources of the Arctic is also of crucial importance for employment, economic growth and settlement along the Norwegian coast. The environment in these areas is being threatened by more intensive utilisation of natural resources, the growing volume of transport, and long-range transport of pollutants with air and ocean currents from Europe, Asia, North America and North Africa.

It is likely that long-range transport of environmentally hazardous substances will continue to put pressure on the Arctic environment. In 2020, the total pollution load, including both «new» and «old» pollutants, will probably be about the same as today. This means that there will also be continued problems such as reduced reproductive capacity and poor resistance to disease among Arctic animals.

Oil and gas transport from Russia, and possibly also the transport of spent nuclear fuel to Russia along the Norwegian coast, will result in a rising risk of accidents that can cause environmental damage. With the growing volume of shipping, there will also be rising discharges of ballast water and a greater risk that alien species will be introduced.

Climate change is a further threat to the Arctic environment. Climate change may result in changes in sea temperature, the distribution of sea ice and ocean currents. Temperatures in the Arctic have been rising at nearly twice the average global rate, and this trend is expected to continue. The impacts of climate change in the Arctic will be felt throughout the world, since changes in the Arctic influence the global climate and can result in rapid climate change.

Svalbard has retained its character as a large, continuous area of wilderness without major developments. However, the growing traffic associated with tourism and research activities is causing wear and tear on the environment and cultural remains. Mining is also a threat to untouched areas of natural habitat. On the other hand, a number of animal populations that were once threatened by over-exploitation have been restored to their former levels or are growing.

The adoption of the Environmental Protocol under the Antarctic Treaty ensured that Antarctica is protected as a world park for a period of at least 50 years. However, growing traffic and tourism

may have a negative impact on the natural environment here too, and increase the risk of pollution. The expansion of research activities also poses challenges in relation to the Antarctic environment.

There are many environmental policy challenges related to land use. It is particularly important to ensure that policy instruments and measures related to land use are compatible with other elements of environmental policy.

The shoreline is under pressure near towns and urban settlements in Norway, where higher population density leads to land use conflicts. There is most pressure for developments that will reduce public access to the shoreline in central parts of the country, for example around the Oslofjord. These may be commercial developments, residential buildings or holiday homes.

Economic activity in uncultivated countryside and the mountains is also expanding. This includes widespread building of holiday cabins, sometimes combined with other tourist activities. In addition, there are growing commercial developments associated with national parks and mountain summer farms. It is important to ensure that forms of commercial development that are based on natural resources and the environment do not conflict with nature conservation goals.

Every year, considerable areas of cultivated and cultivable land, probably up to 3 000 hectares a year, are converted for other purposes. The pressure on farmland is greatest around the largest towns in southern and central Norway. It is important to reduce losses of productive agricultural areas substantially.

The cultural landscape means land that has been shaped and cultivated by people. It is intrinsically valuable and also an important habitat for plants and animals. Many species associated with such areas are dependent on continued human activity for their survival. Large parts of the cultural landscape are changing rapidly, mainly because changes in agricultural techniques and the abandonment of marginal areas mean that they are becoming overgrown.

The built environment accounts for about 70 per cent of Norway's real wealth, and buildings alone account for about 40 per cent of the total. This makes the construction industry one of the country's largest and most important industries, and one that may have a major environmental impact. According to the Public Procurement Act, life-cycle costs and environmental impacts must be taken into account when planning new investments. The state is an important market actor in

the construction industry, and therefore has a considerable responsibility for encouraging private actors to take environmental considerations into account.

1.3 The path forward

There are still major environmental challenges to be dealt with, but it is clear that our efforts over the past 30 years and more have given results. For example, we have made a great deal of progress in reducing industrial emissions and discharges of polluted waste water from towns and urban settlements. Many of the environmental problems that have been dealt with were easily recognisable and well-defined, which made it easier to gain public acceptance for the need to take action. Many problems could be reduced by using end-of-pipe technology or changing production techniques. Others disappeared as a result of restructuring of industries and the business sector. Efforts to protect valuable areas of natural environment have been helped by the fact that Norwegians generally identify strongly with their natural surroundings and make extensive use of them. The challenges we must deal with in the future are increasingly associated with the structure and functioning of society as a whole rather than with specific sectors. This also means that they are more complicated to deal with. Greenhouse gas emissions and emissions of hazardous chemicals are good examples.

The development of environmental policy has involved several processes: building up knowledge of the functioning of the natural world, the development of broad-based public engagement in environmental issues, the introduction of extensive legislation in the environmental field, and the establishment of institutions to draw up and implement strategies and action. Environmental protection has become an important sector of society, including administration and research and also various kinds of economic activity. It is now generally accepted that all sectors of society share the responsibility for avoiding unnecessary pressure on the environment.

In the years ahead, we must consolidate the results that have been achieved and further develop the methods and policy instruments used by the environmental authorities. We must build on the broad support that has been achieved for environmental measures and instruments. There is growing competition for attention in the media and public opinion, and this adds to the challenges

that the environmental authorities face in their day-to-day work.

Good results have been achieved both by using environmental policy instruments such as the Pollution Control Act and the Nature Conservation Act, and by cooperation between the environmental authorities and other sectoral authorities. For example, the agricultural sector plays an important role in carrying out key environmental tasks and in dealing with various environmental problems.

All sectoral authorities are responsible for avoiding unnecessary environmental pressure in their own sphere of responsibility and for integrating environmental considerations into sectoral policies. Policy instruments available to all sectors can, if used in the right way, help to prevent or solve environmental problems. It is an ongoing task to ensure that these instruments are always targeted to achieve environmental policy targets and give positive environmental effects. Environmental efforts in all sectors must be in line with the strategic objectives and national targets of Norway's environmental policy.

However, sectoral responsibilities for environmental policy need to be further clarified and strengthened. In particular, better coordination is needed to deal with diffuse environmental problems and problems that need to be solved by means of close cooperation between several sectors and the other parties involved.

To ensure coordination between sectors, cross-sectoral measures are required. The Ministry of the Environment plays a key role in developing cross-sectoral environmental quality targets and in setting priorities and coordinating efforts within the framework of these targets.

The sectoral environmental action plans drawn up by the ministries in the period 1998 – 2002 have played an important role in clarifying sectoral responsibilities. In these plans, the ministries presented their sectoral environmental targets and the instruments they planned to use to achieve them. The system of sectoral environmental action plans was evaluated in 2004, and it was decided that sectoral responsibilities for environmental policy are to be followed up through the ordinary budgeting processes and the white papers on the Government's environmental policy and the state of the environment in Norway.

Cooperation between the police and prosecuting authority and other authorities and organisations at local, regional and national level is an important element of environmental policy. The police and prosecuting authority, together with central supervisory authorities, play a key role in

preventing and combating environmental crime. One good example of cooperation is that an environmental forum has been established in each county under the chief of police. The responsibilities of the police and other cooperating authorities will be further clarified.

The police forces also have their own environmental coordinators and environmental contacts. Each police district has an officer who is responsible for dealing with environmental crime. The National Authority for Investigation and Prosecution of Economic and Environmental Crime in Norway (ØKOKRIM) is responsible for investigating and prosecuting serious cases of environmental crime and for assisting other parts of the police system.

Knowledge development, sound management and democratic participation will continue to be key elements of Norway's environmental policy. However, policy development and the implementation of measures and policy instruments also require political will and capacity. The framework for national policy development is changing with political and economic globalisation, which are restricting the extent to which individual countries can develop independent environmental policies. Stiffer international competition is making it a challenging task to design policy instruments that also take into account the competitive conditions for enterprises. WTO and EU/EEA rules lay down standards and a framework for action in environmental policy. Multilateral environmental agreements set out commitments for individual countries and form the basis for priorities and the application of policy instruments.

Technological developments are an important driving force for social development, and especially as regards the impact of human activities on the environment. Technological revolutions have drastically changed material living conditions and our ability to utilise natural resources and change the environment. Technological advances provide new solutions in environmental policy, for example better equipment for controlling emissions, improved energy technology and more effective use of resources.

Advances in computer technology have made environmental information much more easily accessible than before. More people can learn about environmental problems and exchange infor-

mation about them. Computer technology is making it possible to develop new methods of environmental monitoring and processing environmental data. It is important to expand the use of computer technology to disseminate information, for environmental monitoring and as a tool for the environmental authorities.

Better environmental information enables people to learn more about environmentally-sound products and increases the demand for such products. It is still possible to shift a greater proportion of consumer demand and the demand in various sectors towards products with less environmental impact.

Environmental policy should be designed to ensure that its positive effects extend beyond the environment. This can increase support for environmental protection in other sectors. For example, developing and marketing environmental technology, or using elements of the cultural heritage as a resource for society, provides employment and builds up expertise that is in demand both in Norway and internationally. Denmark's success in developing and exporting wind power technology is an illustration of the opportunities offered by environmental technology.

The public sector can use its market power to promote green procurement and encourage the construction industry and building managers to improve their environmental profile. This is also a way of using resources more efficiently, thus reducing costs and greening operations.

Norway's municipalities have some freedom of action as regards how they implement environmental policy. If they make full use of this, they can achieve a great deal, while at the same time revitalising local democracy and further developing local autonomy. This should also increase support for environmental policy and increase its legitimacy at both local and national level.

The environmental NGOs play an important role in raising awareness about environmental issues and stimulating public interest. They also function as a school for democracy and voluntary work. However, membership of most of Norway's environmental NGOs has dropped in recent years. It is important to maintain and encourage the engagement in environmental matters that exists within these organisations.

2 Key priorities of Norwegian environmental policy

This chapter discusses the key priorities for Norwegian environmental policy for the next two years. The first five of these – halting the loss of biodiversity, climate policy, reducing NO_x emissions, halting emissions of environmentally hazardous substances, and improving waste management – coincide with or form part of the long-term priority areas of the country's environmental policy. Planned policy instruments and measures for these areas are listed under the appropriate headings in other chapters. The other five are cross-cutting issues – environmental policy at local level, sustainable production and consumption, environmental technologies, greening public procurement and developing a knowledge-based environmental policy. Planned policy instruments and measures for these areas are listed in this chapter.

2.1 Halting the loss of biodiversity

The Government's goal

- To implement measures designed to halt the loss of biodiversity by 2010.

The situation today

Norway is responsible for only a modest proportion of the world's biodiversity. However, climate, topography and land use show remarkable variations within the country's borders, by both European and global standards. Norway stretches into the Arctic, and must therefore find responses to the major environmental challenges in the region. Norway also has a special responsibility for certain species that are of great biological and/or economic importance, such as the Atlantic salmon and wild reindeer.

In Norway, just as in the rest of the world, there are a number of threats to biological diversity. Physical alterations and changes in land use are the most important causes of the loss of species and life forms. A series of apparently insignificant developments may have cumulative effects that make it difficult for species and populations to survive and seriously impair the productivity of ecosystems. The risk of undesirable introduction of

alien species and subsequent damage to ecosystems is likely to increase in future as a result of other developments such as climate change and the growing volume of transport.

At the same time, Norway enjoys a number of natural advantages for the production of high-quality food, such as high insolation in summer and reliable supplies of clean water. The world population is rising and prosperity is increasing, especially in Asia, and it is therefore increasingly important to consider food supplies and areas suitable for food production as a global concern. Our ability to feed ourselves will be rapidly reduced if cultivated and cultivable land continues to be converted to other uses. Highly productive agricultural areas near towns and urban settlements are under the greatest pressure. These are also the areas that will be most valuable for the production of environmentally friendly, locally-grown food in the future. The rapid conversion of farmland for other purposes is also a threat to the value of these areas as landscapes and to their value as habitats for plants and animals.

The Government's response

To halt the loss of biodiversity by 2010 will require a concerted effort involving the whole of Norwegian society, including the public authorities, the business sector, research institutions, and NGOs. Policy instruments must be made more effective and must be coordinated better. Research programmes and surveys and monitoring of the state of the environment are an essential basis for taking effective action before it is too late.

The policy instruments and measures the Government intends to use to halt the loss of biodiversity by 2010 are listed in Chapter 3.3.

One of the national targets for land-use policy is also highly relevant in this connection: to halve the annual conversion of the most valuable soil resources for other purposes than agriculture, and to document particularly valuable areas of cultural landscape and put in place management plans. To achieve this target, it will be necessary to focus more closely on the responsibilities of municipalities as land-use authorities. Land use planning

should also be based on good scientific documentation and a close dialogue between local authorities and interested parties. The Government wishes to ensure that the municipalities take their share of the responsibility for these efforts and encourage them to build up their knowledge of valuable areas of agricultural land and cultural landscapes.

The Government will:

- Draw up guidelines for surveys of core agricultural areas
- Develop visual aids for use in dialogue and cooperation at regional and local level.

2.2 Developing a more ambitious climate policy

The Government's goals

- To ensure that Norway meets its commitment under the Kyoto Protocol
- To play an active role in developing a more ambitious global climate agreement for the period after 2012.

The situation today

The Kyoto Protocol entered into force on 16 February this year. In the period 1990–2003, Norway's aggregate greenhouse gas emissions rose by about 9 per cent, from 50.1 to 54.8 million tonnes CO₂ equivalents. According to an estimate in the 2004 national budget, emissions will continue to rise unless new control measures are introduced, to about 64.5 million tonnes CO₂ equivalents in 2010. This is about 22 per cent higher than the level required to meet Norway's Kyoto commitment.

By continuing to levy the CO₂ tax and combining this with the national emissions trading scheme and other measures, Norway will ensure that environmental policy instruments apply to almost all national greenhouse gas emissions. This will also mean that there are incentives for most enterprises to take steps to cut their emissions.

Under the Kyoto Protocol, the industrialised countries have for the first time undertaken binding obligations to limit and reduce their greenhouse gas emissions. The Protocol is primarily important as a building block of an international framework of climate cooperation. The Third Assessment Report from the Intergovernmental Panel on Climate Change (IPCC), which was published in 2001, makes it even clearer than before

that much larger cuts in emissions will be necessary to prevent undesirable climate change. The most important task now is to start a dialogue and negotiations on a more ambitious global climate regime for the period after the first commitment period under the Kyoto Protocol.

At national level, it is important to develop innovative solutions as a basis for substantial longer-term reductions in Norway's greenhouse gas emissions.

The Government's response

The Government will ensure that Norway meets its commitment under the Kyoto Protocol. The development of policy instruments and measures to reduce greenhouse gas emissions will continue. This work is closely related to both energy policy and transport policy.

The Government wishes Norway to play an active role in efforts to draw up a more ambitious climate agreement for the period after 2012. As a non-member of the EU, Norway can play an important role in this process, and also has a responsibility to do so. The Government believes that Norway can play an important part as a bridge-builder vis-à-vis developing countries, and thus be instrumental in reducing polarisation between industrialised and developing countries in the global climate dialogue.

The policy instruments and measures the Government intends to use as part of a proactive climate policy are listed in Chapter 9.2.1.

2.3 Reducing NO_x emissions in accordance with the Gothenburg Protocol

The Government's goal:

- To introduce the necessary measures and instruments needed to ensure that Norway meets its commitment to reduce emissions of nitrogen oxides (NO_x) under the Gothenburg Protocol by 2010.

The situation today

The 1999 Gothenburg Protocol entered into force on 17 May 2005. Norway has ratified the protocol, and has among other things undertaken to reduce annual emissions of nitrogen oxides (NO_x) to 156 000 tonnes by 2010. New control measures will have to be introduced in several sectors if Norway is to meet this commitment. It is important to lay

down a framework for such measures now, so that they can be implemented soon enough to be effective from 2010.

In 2003, NO_x emissions in Norway totalled 220 000 tonnes. According to projections drawn up for a white paper on economic policy published in 2004 (Report No. 8 (2004–2005) to the Storting), annual NO_x emissions are likely to be reduced to about 200 000 tonnes in 2010 and 162 000 tonnes in 2020 by the application of current policy instruments. To meet Norway's commitment under the Gothenburg Protocol, annual emissions must be reduced by a further 45 000 tonnes.

It is expected that emissions from road traffic in particular will decrease in the period up to 2010, as a result of stricter emission standards for new vehicles. Emissions from the petroleum industry are also expected to drop in this period. However, emissions from certain other sectors are expected to rise as a result of a higher level of activity.

The Government's response

Norway has been one of the countries at the forefront of efforts to develop binding international agreements on reductions in long-range air pollution. Norway is a net recipient of transboundary air pollution, and will therefore enjoy substantial environmental benefits if other countries meet their international commitments in this field. It is therefore vital for Norway itself to meet its commitments under the Gothenburg Protocol.

The measures and instruments that are chosen must make it possible to meet Norway's commitments under the protocol as cost-effectively and efficiently as possible.

The Government has commissioned cross-sectoral analyses of the potential for further measures to reduce NO_x emissions and the costs of these measures. About 40 per cent of Norway's NO_x emissions are generated by national sea traffic and the fishing industry. The analyses also show that measures targeted towards national sea traffic and the fishing fleet can be introduced at lowest cost. A substantial proportion of the reduction in emissions should therefore be in these sectors. In addition, the analyses identify some cost-effective NO_x measures for manufacturing industries in mainland Norway and for electricity generation on the continental shelf. These sources account for approximately 9 and 17 per cent respectively of Norway's NO_x emissions. According to the analy-

ses, measures in the offshore petroleum industry are generally more costly than those that were evaluated for national sea traffic and the fishing fleet. It is also necessary to consider measures in other sectors where there are large NO_x emissions, such as road traffic.

The policy instruments and measures the Government intends to use to reduce NO_x emissions are listed in Chapter 9.4.3.

2.4 Halting emissions of environmentally hazardous substances

The Government's goal

- To intensify efforts to reach the targets for substances that are hazardous to health and the environment, and to eliminate emissions of the most environmentally hazardous substances by 2020.

The situation today

All products contain chemicals, and they are used in almost all production processes. There are at present roughly 50 000 chemicals on the European market. In most cases, we know little or nothing about their effects on health and the environment.

Emissions of pollutants are generated by many processes – mining, industrial production of raw materials and finished products, the use of products in households, industry and workplaces, and waste treatment.

In addition, long-range inputs of environmentally hazardous substances reach Norway with winds and ocean currents. There are many places where such pollutants, generated for example by industrial activities, have been deposited in soils or in marine and fresh water sediments.

The Government's target of eliminating all emissions of environmentally hazardous substances within one generation, i.e. by 2020, is unlikely to be achieved if such substances continue to be used in ordinary consumer products.

The Government's response

The policy instruments and measures the Government intends to use to reduce emissions of hazardous substances are listed in Chapter 7.3.

2.5 Improving waste management and increasing waste recovery

The Government's goal

- Reduce the environmental pressures caused by waste and ensure that greater use is made of waste as a resource.

The situation today

Today, the proportion of waste recovered in Norway is higher than ever before. Almost 70 per cent of all waste is used either for material recovery (recycling) or for energy recovery. This means that we are well on the way to achieving the target of 75 per cent waste recovery by 2010. This successful result has been achieved by a combination of an ambitious waste policy with active and constructive follow-up of municipalities, the business sector and other actors.

Nevertheless, waste recovery and disposal still generates substantial releases of pollutants to air, soil and water, and thus causes both local and global environmental problems. Methane emissions from landfills currently account for about 4 per cent of Norway's aggregate greenhouse gas emissions.

Because more and more of the substances in waste are recognised as environmentally hazardous, the quantity of hazardous waste is also rising. Every year, 800 000 tonnes of hazardous waste is generated. A substantial proportion of this, estimated at 100 000 tonnes, is not handled in accordance with the legislation, and therefore represents a threat to the environment.

The Government's response

In future, Norway's waste treatment and disposal plants will be required to satisfy strict environmental standards, and waste materials will be required to satisfy specific quality standards, so that they are in demand as resources. The Government will seek to change Norway from a waste-generating society to one based on waste recovery and recycling.

The policy instruments and measures the Government intends to use in this field are listed in Chapter 8.3.

2.6 Developing environmental policy at local level

The Government's goal

- To encourage municipalities to make full use of the freedom of action they have in the field of environmental policy, for example by exchanging best practices.

The situation today

Challenges in some environmental policy areas can be dealt with most effectively by means of international cooperation combined with national policy instruments. Climate policy is a good example. In these fields, the municipalities can make an important additional contribution if they make full use of the opportunities available to them. In other policy areas, such as the management of biodiversity, the shoreline and the cultural heritage, the Planning and Building Act puts the most important policy instruments at the disposal of the municipalities.

To achieve Norway's objective of realising sustainable development will require the active involvement of the state authorities, municipalities, NGOs and the business sector. Because the municipal authorities have close links to the local population, local businesses and local NGOs, they can more easily gain support for national and local environmental policy. If all municipalities make full use of their freedom of action in different roles – providing services, exercising authority, and community development – they can make an important contribution to achieving the goals of environmental policy. It will be necessary to develop tools and instruments that can be used to give environmental protection and sustainable development a higher profile and integrate them better into the ordinary municipal planning and management systems. A great deal of knowledge and experience has been acquired through local environmental efforts in recent years. Considerable environmental benefits can be gained by spreading this knowledge to as many municipalities as possible.

Better cooperation between the central sectoral authorities is needed to encourage good environmental practices at local level and the development of environmentally sound communities. Central government incentives and policy instruments in various fields must be coordinated so that national environmental targets can be achieved efficiently at local level.

The Government's response

The Government will:

- Establish a five-year programme for further development of local-level environmental protection and sustainable local communities, in cooperation with the municipal sector (the Norwegian Association of Local and Regional Authorities), as part of the follow-up of National Agenda 21 and the Government's modernisation initiative vis-à-vis the municipalities.
- Encourage municipalities to draw up environmental reports as part of municipal planning routines and develop tools to help them with this.
- Provide a framework for proactive local efforts in the fields of energy and climate.
- Provide a framework for active municipal participation in environmental cooperation with local communities in developing countries.
- Promote good environmental practices at municipal level and encourage municipalities to incorporate environmental considerations into public procurement processes.

2.7 Moving to sustainable production and consumption

The Government's goal

- To reduce the environmental pressure caused by production and consumption in Norway.

The situation today

Regardless of how we measure it, the consumption of goods and services has been rising steadily in industrialised countries for many years. Consumption is also rising rapidly in many developing countries. However, figures from the UN Commission on Sustainable Development (CSD) show that the richest 15 per cent of the world population still account for 56 per cent of total world consumption. The poorest 40 per cent account for only 11 per cent of total consumption. Many countries are still dependent on substantial economic growth to be able to satisfy their people's basic needs.

At the same time, we know that the global environment cannot sustain a continuing worldwide rise in consumption at the same rate and following the same patterns as we have seen until now in the rich part of the world. In a white paper on globalisation (Report No. 19 (2002–2003) to the Storting), the Norwegian Government quoted Global Environmental Outlook 2000, according to which «a

tenfold reduction in resource consumption in the industrialised countries is a necessary long-term target if adequate resources are to be released for the needs of developing countries». The Government added that people in the industrialised countries will have to realise that any future improvement in the quality of their lives both can and must be based on considerably lower consumption of resources.

Far-reaching changes in production and consumption patterns will thus be required to ensure that everyone can enjoy a satisfactory quality of life and living conditions without destroying the natural resource base or exceeding the carrying capacity of the environment. People in the rich part of the world, including rich people in developing countries, have a dual responsibility. They must both reduce the environmental pressure caused by their own consumption and help to prevent economic growth and development in poor countries from imposing excessive costs on the environment and resource base.

A substantial proportion of consumption in Norway is based on raw materials and products extracted and manufactured in other countries. To achieve global results, action is required in both developing and industrialised countries. At the World Summit on Sustainable Development in Johannesburg in 2002, world leaders committed themselves to a 10-year framework of programmes to promote sustainable production and consumption patterns.

Achieving results in this field is a complex task with a wide scope, and will require changes in behaviour by all actors, including the business sector, NGOs, international organisations, the public sector, consumers and the general public.

The Government's response

Continued efforts to bring about a shift to sustainable production and consumption will involve a wide range of measures and sectors. The Government's policy will be designed to encourage the business sector, NGOs, the public administration and individual people to play an active part in these efforts. Sections 2.5–2.10 of this chapter list a number of cross-cutting measures and initiatives that are intended to promote more sustainable production and consumption. In addition, the Government considers that more knowledge and better analyses and tools are needed to follow developments in this field. The Government will play an active part in efforts to promote sustainable production and consumption at Nordic, European and global level,

and particularly in following up the commitments made at the Johannesburg Summit.

The Government will:

- Actively encourage more Norwegian companies to focus on corporate social responsibility (CSR) and promote the development of an international framework that gives greater support to CSR.
- Play an active role in international cooperation in this field (in the Nordic Council, the EU, UNEP and CSD) in support of the Johannesburg commitment to the development of a 10-year framework of programmes to promote sustainable consumption and production.
- Within Norway's development cooperation activities, encourage cooperation on sustainable production and consumption with those developing countries that are interested.
- Give priority to analyses of the environmental impacts of production and consumption in Norway, and develop suitable indicators for monitoring the relationship between consumption and its environmental impacts over time. This work must be coordinated with the proposals from the committee appointed to develop a core set of indicators for sustainable development.
- Develop a strategy for sustainable management of state-owned buildings.
- Provide a satisfactory framework and suitable instruments for sustainable building management in the municipal sector as part of the follow up of the report on municipal property management (Official Norwegian Report 2004: 22)

2.8 Focusing on environmental technologies

The Government's goal

- To give Norway a pioneering role in the development of environmental technologies

The situation today

Future improvements in welfare must be achieved with less use of resources, energy and harmful chemicals. One way of doing this is to step up the development and use of environmental technologies. Their use can bring about considerable environmental improvements both nationally and internationally.

The Government intends to promote the development and use of environmental technologies and to make them a key element of efforts to deal with

important environmental challenges. Reducing energy and resource use often reduce costs as well, thus improving the competitive position of the technology in question. Thus, environmental technologies can contribute to industrial development and higher employment in addition to environmental improvements.

Lower costs give developing countries more opportunity to make use of such technologies, thus helping them to satisfy their urgent need for economic growth without putting too much pressure on the environment. In this way, environmental technologies can provide a basis for increasing value creation while reducing environmental pressure and global poverty.

There is growing international interest in environmental technology solutions. The EU, for example has adopted the Environmental Technologies Action Plan. The Government intends to take part in the follow-up of this plan and ensure that Norwegian actors can take part in relevant activities and processes. The growing international interest also means that opportunities for the export of Norwegian environmental technology are expanding.

A number of Norwegian companies and research communities are already world leaders in various environmental technologies. Norwegian companies are at the forefront of developments internationally in the fields of waste management, water, air and energy.

The Government wishes Norway to take a proactive and ambitious approach to the environmental technology field. The Government's vision is for Norway to play a leading role internationally in the development and use of environmental technologies, and for Norwegian environmental technology to play a part in resolving environmental problems at both national and international level. In particular, the Government sees it as important that Norwegian solutions can help to bring about environmental improvements and reduce poverty in developing countries.

The Government's response

To reinforce efforts in the field of environmental technology, the Government will:

- Promote the expansion of research on environmental technologies and make fuller use of research results.
- Clarify what contribution the business sector is expected to make, and evaluate ways of making better use of existing sources of funding, such as the grant schemes administered by Innovation Norway.

- Ensure that Norwegian actors can make use of the opportunities offered by the new EEA financial mechanisms. Environmental technology will be one natural priority area for Norway in its cooperation with the new member states.
- Assess how Norwegian aid funds can be used to a greater degree to promote the development and use of environmental technologies.
- Strengthen information activities and the competence of the environmental authorities in this field.
- Consider the establishment of a national centre for environmental technology for both children and adults.

2.9 Greening public procurement

The Government's goal

- To reduce the environmental pressure caused by the consumption of goods and services by giving greater weight to environmental considerations in public procurement processes

The situation today

In 2003, the total value of goods and services purchased by the public sector was almost NOK 240 billion, of which NOK 96 billion was in the central government sector and NOK 70 billion in the municipal sector. Publicly-owned commercial enterprises accounted for the remainder. This means that there is a substantial potential for reducing the environmental impact of the public sector. By setting higher environmental standards, the public sector can persuade suppliers and manufacturers to shift towards greener product development, and thus encourage the marketing of a wider range of products with more positive environmental attributes. In the Government's opinion, the public sector has a special responsibility to lead the way, given its size and the fact that it is responsible for managing public funds. Public-sector agencies should be aware of the environmental impacts of their purchases, set environmental standards, and choose the best solutions in environmental terms within the constraints of price and quality. The Government wishes the public sector to be a driving force in efforts to shift the pattern of consumption in Norway in a more sustainable direction.

The importance of including environmental considerations in public procurement policies was emphasised at the Johannesburg Summit in 2002.

The OECD has also urged member states to greater effort in this field. Moreover, public procurement is also a central element of the EU's Integrated Product Policy and its Environmental Technologies Action Plan. The Commission has urged member states to draw up their own action plans for green public procurement from 2005. Several EU states are already engaged in this work, and the Nordic countries Sweden and Denmark are playing a leading role. In the Government's view, Norway should also be at the forefront of developments in this field in Europe.

Norway's new Public Procurement Act entered into force in 2001, and requires public authorities to take life-cycle costs and environmental impacts into account when planning new investments. The requirements have been further elaborated in regulations and in guidelines published by the Ministry of Trade and Industry. In addition to environmental considerations, the legislation requires many other considerations to be taken into account during public procurement processes. For example, steps must be taken to ensure equal conditions of competition for actors in the business sector. Because several different objectives are involved, it may be more complicated to incorporate environmental considerations into procurement processes in the public sector than in the private sector. This applies, for example, to the development of environmental criteria in connection with tendering. In the Government's view, further measures are needed to build up public-sector expertise on environmental aspects of procurement, and to make the development of environmental criteria more efficient. They are needed to ensure that the public sector can achieve its full potential for influencing the market for environmentally sound goods and services and that Norway is at the forefront of developments in Europe.

The Government's response

To reinforce efforts in the field of public procurement, the Government will:

- Establish a green public procurement panel as a national advisory body for the authorities. The panel will include representatives of central government and municipal agencies, the business sector, the educational sector, etc. The panel's main functions will be
 - to identify opportunities for including environmental considerations in public procurement processes, and barriers to doing so,
 - to propose new policy instruments and measures,

- to evaluate the need to develop new indicators for this field or further develop existing indicators.
- Establish a programme at the GRIP Centre for Sustainable Production and Consumption. The programme will help to ensure that public-sector agencies are familiar with the environmental standards laid down by the rules relating to public procurement, and that they have sufficient expertise to comply with these rules. The programme is also intended to make it easier to set specific environmental standards in practice.

2.10 Developing a knowledge-based environmental policy

The Government's goal

- To improve the knowledge base for environmental policy and raise the general level of environmental awareness in Norwegian society

The situation today: more knowledge needed

Environmental policy must be based on knowledge of ecological interactions and interactions between nature and society, and how activities in various sectors of society influence the environment and human health. Without adequate knowledge, political goals will be haphazard and the public administration will be left behind and will not be able to take an innovative approach.

Adequate knowledge of environmental developments makes it possible to evaluate the impacts of our actions and to choose short- and long-term policy instruments that will put us in a better position to prevent or counteract environmental damage and injury to health.

The knowledge base is built up through research, data collection and reporting. It is equally important to communicate knowledge that has been acquired to the general public and to decision-makers. Knowledge about the environment and environmental problems must become a key element of decision-making processes in both the public and the private sector.

Educational institutions are responsible for a significant proportion of knowledge development. The whole school system, including institutions that provide vocational training and higher education institutions, gives new generations knowledge, attitudes and skills that can be instrumental in bringing about sustainable development. The media, the Internet and libraries also play an

important role in communicating environmental information. Product information and green certificate schemes are other sources of environmental information.

The Government's response

Up-to-date and accurate knowledge is essential for preventing and repairing environmental damage.

The Government will give high priority to ensuring that everyone has access to environmental information, and particularly that it is an integral part of the education of children and young people. Environmental information must also be an element of lifelong learning and play a part in influencing people's attitudes. Information must be used to encourage participation in decision-making processes in society and to provide a basis for making environmentally friendly choices on a day-to-day basis.

The Internet is a powerful tool for developing knowledge and processing and communicating information. More and more people are using the Internet and other electronic means of maintaining contact and finding information. The Internet has also become a key channel for communication between members of the public and the public administration. Environmental information must increasingly be provided electronically and in a way that makes it possible to have a dialogue with users.

To improve the knowledge base for environmental policy and raise the general level of environmental awareness in Norwegian society, the Government will:

- Expand environmental monitoring programmes and increase the environmental research effort.
- Take part in the development of the Global Earth Observation System of Systems (GEOSS), a worldwide network for global utilisation of data, for example for monitoring and for early warning of environmental disasters.
- Develop the website State of the Environment Norway into the central information channel for facts and data on the Norwegian environment.
- Follow the guidelines developed by the Web Accessibility Initiative (WAI) for websites that provide environmental information, to ensure that everybody has equal opportunities for participation.
- Make the general public and the public administration more aware of their rights under the new Environmental Information Act, and provide a framework that will enable public author-

ities and businesses to meet their obligations under the Act.

- Take steps to provide more environmental information about products, particularly those intended for private consumers, and focus on eco-labelling and green certificate schemes.
- Continue efforts to increase the availability of product information on the Internet and further develop the Product Register, for example by encouraging the business sector to play a larger role.
- Integrate environmental education and the natural sciences in the school system, for instance by raising the level of expertise among teachers and at teacher training institutions.
- Further develop, modernise and strengthen the Norwegian Environmental Education Network, among other things by linking it more closely to the website State of the Environment Norway.
- Take the initiative for closer cooperation between Norwegian schools and schools in developing countries and Eastern Europe.

3 Conservation and sustainable use of biological diversity

3.1 Goals

Box 3.1 shows the Government's goals for the conservation and sustainable use of biological diversity. The strategic objective has been amended to include Norway's international commitment to halting the loss of biodiversity.

3.2 Policy instruments and measures

The Government will take the following steps to halt the loss of biodiversity by 2010:

- Continue the development of relevant legislation on the basis of the report from the committee appointed to review legislation relating to biodiversity.
- Expand survey and monitoring activities related to biodiversity: this will include continuing and improving the national programme to survey and monitor biodiversity, carrying out the next phase of municipal surveys of biodiversity, and starting programmes in marine areas (MAREANO¹ and SEAPOP²).
- Strengthen research related to biodiversity.
- Revise the Norwegian Red List of threatened species. The next edition should be ready in 2006, and a major revision of the list will be completed in 2010.
- Draw up action plans for selected habitat types, groups of species and species in the period 2005–2010, including plans for coral reefs, kelp forests and selected types of cultural landscape that require management.
- Draw up management plans for the most heavily used national parks and other large protected areas, and ensure that an active management regime is pursued in protected areas where this is necessary.
- Draw up and implement a national plan for protected marine areas.

¹ The MAREANO project involves a number of institutions, and will among other things map topography, resources, pollution and biodiversity in marine and coastal waters.

² SEAPOP stands for Seabird Population Management and Petroleum Operations.

Box 3.1 Goals for conservation and sustainable use of biological diversity

Strategic objective:

The environment shall be managed in a way that maintains the diversity of habitats and landscape types and ensures that there are viable populations of naturally-occurring species: this will ensure that biological diversity can continue to evolve. In addition, Norway aims to halt the loss of biodiversity by 2010.

National targets:

1. A representative selection of Norwegian habitats shall be protected for future generations.
2. Major disturbance such as infrastructure development shall be avoided in endangered habitats, and in vulnerable habitats important ecological functions shall be maintained.
3. The cultural landscape shall be managed in such a way that biological diversity, the historical and aesthetic value of the landscape and its accessibility are maintained.
4. Harvesting and other use of living resources shall not cause species or populations to become extinct or endangered.
5. The introduction of alien species through human activity shall not damage or limit ecosystem functions.
6. Populations of endangered species and species for which Norway has a special responsibility shall be maintained or restored to viable levels.
7. The needs of future generations shall be taken into account when managing soil resources that are suitable for cereal production.

- Draw up proposals for a national action plan for the management of genetic resources and conservation of genetic diversity.
- Implement the national plan for management of genetic resources for food and agriculture.
- Follow an improved and integrated strategy for maintaining important agricultural landscapes and protecting cultivable and cultivated soil.
- Strengthen the regulatory regime for as many as possible of the marine fish stocks that are used commercially by establishing long-term management plans for these stocks.
- Draw up a cross-sectoral national strategy for alien species by 2006. This work includes drawing up a «black list» of alien species that may threaten or are already threatening ecosystems, habitats or other species in Norway and a review of the economic impacts of alien species in Norway.
- Play an active part in strengthening the international framework for conservation and sustainable use of biodiversity. Arrange the fifth international Trondheim conference on biodiversity in 2007, which will focus on the international goal of achieving by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth.

4 Outdoor recreation

4.1 Goals

Box 4.1 shows the Government's goals for outdoor recreation. Instruments and measures designed to achieve national target 4 are listed in chapter 11.6.

Box 4.1 Goals for outdoor recreation

Strategic objective:

Everyone shall have the opportunity to take part in outdoor recreation as a healthy and environmentally sound leisure activity that provides a sense of well-being both near their homes and in the countryside.

National targets:

1. The tradition of outdoor recreation based on the right of access to uncultivated land shall be kept up by all sections of the population.
2. Children and young people shall be given the opportunity to develop skills in outdoor recreation activities.
3. Areas of value for outdoor recreation shall be safeguarded so that environmentally-friendly access and passage and harvesting of natural resources is promoted and the natural resource base is maintained.
4. Near housing, schools and day care centres, there shall be adequate opportunities for safe access and play and other activities in a varied and continuous green structure, and ready access to surrounding areas of countryside.

4.2 Policy instruments and measures

The Government will:

- Intensify efforts to promote physical activity, including arranging Outdoor Recreation Year 2005.
- Strengthen the legal basis for outdoor recreation activities, including the right of public access to the countryside.
- Establish a forum for outdoor recreation in schools, in cooperation with the Directorate for Primary and Secondary Education, the Directorate for Health and Social Affairs and NGOs that are active in this field. The aim is to build up expertise in outdoor recreation activities in the school system.
- Safeguard a number of large outdoor recreation areas for public use and safeguard outdoor recreation interests in areas that are no longer required by the Norwegian defence forces.
- As part of its focus on the coastal zone, consider whether to expand the system of coastal parks further west than Lindesnes municipality in Vest-Agder county.

5 The cultural heritage

5.1 Goals

Box 5.1 shows the Government's goals for cultural heritage conservation, as they were proposed in the recent white paper on the cultural heritage (Report No. 16 (2004–2005) to the Storting).

Box 5.1 Goals for cultural heritage conservation

Strategic objective:

The diversity of cultural monuments, sites and environments shall be managed and enhanced as resources for continued active use, as a repository of knowledge, to provide opportunities for experiencing our cultural heritage, and as a catalyst for economic growth. A representative selection of cultural monuments, sites and environments shall be made and managed on a long-term basis.

National targets:

1. Annual losses of cultural monuments, sites and environments as a result of demolition, damage and decay shall be minimised, and by 2020 shall not exceed 0.5 per cent of the total.
2. Cultural monuments, sites and environments protected under the Cultural Heritage Act shall be safeguarded and a standard requiring only normal maintenance shall be achieved by 2020.
3. The selection of permanently protected cultural monuments, sites and environments shall include a wider range in terms of geography, social class, ethnicity, industrial and commercial use and historical periods, and by 2020 a representative selection of these monuments, sites and environments shall be protected under the Cultural Heritage Act.

5.2 Policy instruments and measures

The Government will:

- Follow a policy that safeguards the full breadth of Norway's cultural heritage as a repository of knowledge, to provide opportunities for experiencing this heritage and as a catalyst for economic growth.
- Follow a policy to ensure that the potential of the cultural heritage is realised more fully than is the case today. This will include a focus on the development of local communities and commercial activities on the basis of the cultural heritage in towns and urban settlements, along the coast and in the agricultural landscape. A programme for value creation and a knowledge network for historical properties will be established.
- Launch special initiatives targeting children and young people and the cultural heritage of minority groups in Norway.
- Provide a framework that will enable municipalities to make use of the cultural heritage in the development of communities, through development of the Planning and Building Act.
- Make use of research, competence-building and information to improve access to the cultural heritage.

6 Eutrophication and oil pollution

6.1 Goals

Box 6.1 shows the Government's goals for reduction of eutrophication and oil pollution.

Box 6.1 Goals for reduction of eutrophication and oil pollution

Strategic objective:

The water quality in fresh water bodies and marine areas shall be high enough to maintain species and ecosystems and to take account of the requirements of human health and welfare.

National targets:

1. Inputs of the nutrients phosphorus and nitrogen to parts of the North Sea that are adversely affected by eutrophication shall be reduced by about 50 per cent by 2005, using 1985 as the base year.
2. Operational discharges of oil shall not result in unacceptable injury to health or environmental damage. The risk of environmental damage and other adverse effects of acute pollution shall be acceptable.

6.2 Policy instruments and measures

The Government will:

- Implement an integrated and ecosystem-based management regime for marine and coastal waters and freshwater by completing the integrated management plan for the Barents Sea and drawing up integrated management plans for inland and coastal waters as required by the EU Water Framework Directive.
- Intensify efforts to improve water quality in Lake Vansjø and any other water bodies where there are serious, complex environmental problems.
- Continue efforts to achieve the zero discharge goal, i.e. to halt or minimise discharges of environmentally hazardous substances and other substances that may have a negative impact on the environment from the petroleum industry.
- Continue to play an active part in regional cooperation on the marine environment.
- Play its part in ensuring that the Ballast Water Convention can enter into force.
- Take steps to ratify the Ballast Water Convention in the course of 2005.
- Implement the provisions of the Ballast Water Convention nationally and through regional cooperation.
- Take steps to monitor the introduction of alien species via ballast water and sediments from ships.
- Consider the establishment of a national forum for environmentally sound shipping in cooperation with the industry.

7 Hazardous substances

7.1 Goals

Box 7.1 shows the Government's goals for reducing the risks associated with hazardous substances.

The wording of the national target for polluted soil, water and sediments has been changed, and it has been split into two targets (one for soil and one for sediments).

7.2 Policy instruments and measures

The Government will:

- Review the possibility of prohibiting the use of environmentally hazardous substances in products intended for the private consumer.
- Implement the new action plans for mercury and for PFOS and PFOS-related compounds.
- Propose new substances for inclusion in international agreements such as the Stockholm Convention on Persistent Organic Pollutants.
- Give priority to efforts to remove substances that are hazardous to health and the environment from products intended for children or limit their use in such products.
- Ensure stricter control of compliance with legislation relating to environmentally hazardous substances.
- Ensure that appropriate action is taken at all contaminated sites by 2006.
- Intensify efforts to ensure that polluted sediments do not give rise to serious pollution problems.

Box 7.1 Goals for reducing the risks associated with hazardous substances

Strategic objective:

Emissions and use of hazardous chemicals shall not cause injury to health or damage the productivity of the natural environment and its capacity for self-renewal. Concentrations of the most hazardous chemicals in the environment shall be reduced towards background values for naturally occurring substances and close to zero concentrations for man-made synthetic substances.

National targets:

1. Emissions of certain of the most environmentally hazardous substances shall be eliminated or substantially reduced by 2000, 2005 or 2010.
2. Emissions and use of substances that pose a serious threat to health or the environment shall be continuously reduced with a view to eliminating them within one generation (by the year 2020).
3. The risk that emissions and use of chemicals will cause injury to health or environmental damage shall be reduced substantially.
4. The dispersal of the most environmentally hazardous substances from contaminated soil shall be stopped or substantially reduced. Steps to reduce the dispersal of other hazardous substances will be taken on the basis of case-by-case risk assessments.
5. Contamination of sediments with substances that are hazardous to health or the environment shall not give rise to serious pollution problems.

8 Waste management and recovery

8.1 Goals

Box 8.1 shows the Government's goals for waste management and recovery.

Box 8.1 Goals for waste management and recovery

Strategic objective:

Damage to people and the environment caused by waste is to be minimised. To achieve this, waste problems are to be solved by means of policy instruments that ensure a good socio-economic balance between the quantity of waste generated and the quantities recovered, incinerated and landfilled.

National targets:

1. The growth in the quantity of waste generated shall be considerably lower than the rate of economic growth.
2. The proportion of waste recovered is to be raised to about 75 per cent of the total quantity in 2010 and subsequently to 80 per cent. This is based on the principle that the quantity of waste recovered should be increased to a level that is appropriate in economic and environmental terms.
3. Practically all hazardous waste is to be dealt with in an appropriate way, so that it is either recycled or sufficient treatment capacity is provided within Norway.

8.2 Policy instruments and measures

The Government will:

- Take steps to raise the proportion of waste recovered, with the aim of reaching 80 per cent.
- Implement a strategy for biodegradable waste, which will include
 - the introduction of waste management plans as a mandatory element of all building projects,
 - the prohibition of landfilling of biodegradable waste, planned to take effect from 1 January 2009.
- Implement a new strategy to increase the proportion of hazardous waste delivered to approved facilities.
- Play an active role in the development of new legally binding and globally applicable rules to ensure that ship recycling is carried out in an environmentally sound way.

9 Climate change, air pollution and noise

9.1 Climate

9.1.1 Goals

Box 9.1 shows the Government's goals for the reduction of greenhouse gas emissions.

9.1.2 Policy instruments and measures

The Government will:

- Ensure that Norway plays an active role in negotiations towards a more ambitious climate agreement containing stricter and more comprehensive commitments to reduce emissions after the end of the first commitment period under the Kyoto Protocol in 2012. This must include both the US and those developing countries that generate large volumes of emissions or whose emissions are rising rapidly.
- Cut Norway's emissions in the period 2005–2007 by means of the domestic emissions trading scheme and the arrangement with operators in the process industry who are not at this stage included in the scheme.
- Cooperate closely with other countries, especially the EU, on developing an international

market for emissions trading as soon as possible.

- Consider the establishment of long-term climate policy goals, based on the conclusions of the commission appointed to assess how Norway can become a low-emission society by 2050.
- Continue to give priority to the objective of bringing about a shift in Norway's energy production and use and achieving the national target of a total of 12 TWh per year in energy savings and new renewable energy production by 2010. An important tool for this work is the Energy Fund: its funding has been strengthened, and it contains NOK 660 million in 2005.
- Follow up the strategy for reducing the use of mineral oils for heating by 25 per cent during the first Kyoto commitment period, 2008–2012.
- Continue to encourage greater use of waste as a source of energy to replace fossil fuels.
- Continue efforts channelled through Gassnova (the state centre for sustainable gas technologies), the fund for sustainable gas technologies and the new research programme on environmentally-friendly gas technologies (CLIMIT) to develop energy-efficient and profitable designs for gas-fired power plants with CO₂ capture and storage.
- Continue taxation and refund schemes for HFCs and PFCs, which are moderately to very potent greenhouse gases.
- Maintain the agreement between the Ministry of the Environment and the Norwegian Electricity Industry Association on reduction of SF₆ emissions from the electricity sector.
- Continue to limit emissions from the petroleum industry by focusing on technological improvements and the development of new technology.
- Evaluate new ways of adapting Norwegian society to climate change.
- Follow up the report of the Arctic Climate Impact Assessment (ACIA) at national and international level. At national level, one of the Government's responses will be to intensify research and monitoring in fields where the ACIA revealed gaps in our knowledge.

Box 9.1 Goals for the reduction of greenhouse gas emissions

Strategic objective:

Concentrations of greenhouse gases shall be stabilised at a level that will prevent dangerous anthropogenic interference with the climate system.

National target:

Norway shall comply with its commitment under the Kyoto Protocol, which is that its greenhouse gas emissions in the period 2008–2012 must not be more than 1 per cent higher than in 1990.

- Intensify climate-related research, for example through the research programme NORKLIMA, and monitoring activities. Encourage analyses of the framework and relevant instruments of climate policy, and focus on research on technology to reduce emissions of CO₂ and other greenhouse gases.
- Analyse the overall potential for local climate measures (see Chapter 2.6 on environmental policy at local level).

9.2 Depletion of the ozone layer

9.2.1 Goals

Box 9.2 shows the Government's goals for phasing out the use of ozone-depleting substances.

9.2.2 Policy instruments and measures

The Government will:

- Work actively to further develop a framework that will make it easier for developing countries and Eastern European countries to meet their existing commitments and if appropriate undertake new commitments under the Montreal Protocol.
- Continue work under the Montreal Protocol to ensure that phasing out ozone-depleting substances more rapidly does not result in more use of HFCs and other substances that enhance the greenhouse effect.

Box 9.2 Goals for phasing out the use of ozone-depleting substances

Strategic objective:

All production and use of ozone-depleting substances shall be eliminated.

National targets:

1. Consumption of halons, all types of chlorofluorocarbons (CFCs), tetrachloromethane, methyl chloroform and hydrobromofluorocarbons (HBFCs) shall be eliminated.
2. Consumption of methyl bromide shall be stabilised in 1995 and phased out by 2005.
3. Consumption of hydrochlorofluorocarbons (HCFCs) shall be stabilised in 1995 and phased out by 2010.

9.3 Long-range air pollution

9.3.1 Goals

Box 9.3 shows the Government's goals for the reduction of emissions of long-range air pollutants.

9.3.2 Policy instruments and measures

The Government will:

- Introduce the necessary measures and instruments needed to ensure that Norway meets its commitment to reduce emissions of nitrogen oxides (NO_x) under the Gothenburg Protocol by 2010. The most important of these will be as follows:
 - Lay down emission limits to air pursuant to the Seaworthiness Act for national sea traf-

Box 9.3 Goals for reductions in emissions of long-range air pollutants

Strategic objective:

Emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia shall be reduced so that critical loads and levels are not exceeded, thus avoiding environmental damage, and so that injury to health is avoided.

National targets:

1. Annual emissions of sulphur dioxide (SO₂) shall not exceed 22 000 tonnes from 2010 onwards.
2. Annual emissions of nitrogen oxides (NO_x) shall not exceed 156 000 tonnes from 2010 onwards, and annual emissions in the period up to 2010 shall not exceed the 1987 level (230 000 tonnes).
3. Annual emissions of volatile organic compounds (VOCs) shall not exceed 195 000 tonnes from 2010 onwards. In the period up to 2010, annual emissions shall not exceed the 1988 level (252 000 tonnes), and annual emissions from the entire mainland and the Economic Zone of Norway south of 62°N shall not exceed 70 per cent of the 1989 level (191 000 tonnes).
4. Annual emissions of ammonia (NH₃) shall not exceed 23 000 tonnes from 2010 onwards.

- fic and the fishing fleet, to apply to both new and existing vessels.
- Lay down new emission limits pursuant to the Pollution Control Act for manufacturing industries in mainland Norway and electricity generation on the continental shelf.
 - Facilitate flexible solutions for the implementation of stricter requirements than those that follow from the rules on integrated pollution prevention and control (IPPC Directive) and emission limits for national sea traffic and the fishing fleet. This will ensure that the NO_x target is achieved as cost-effectively as possible. Further review a system that is as cross-sectoral as possible, including tax levels differentiated according to the level of NO_x emissions and/or third-party emission reductions. Design policy instruments to ensure that Norway's commitment is achieved by 2010, to provide a predictable framework, and to provide good incentives across sectors.
 - Consider whether to provide grants towards measures to reduce NO_x emissions from national sea traffic and the fishing fleet.
 - Consider whether to differentiate the road tax for vehicles of maximum total weight up to 12 tonnes according to their NO_x emissions.
 - Play an active part in revision of the Gothenburg Protocol, with a view to achieving further environmental improvement in Norway.
 - Take the initiative vis-à-vis the International Maritime Organisation (IMO) for the development of international rules that will effectively reduce emissions to air from ships in cases where critical loads for ecosystems and human health are exceeded partly as a result of these emissions.
 - Follow up the new strategy adopted by the EMEP programme (Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe).

Box 9.4 Goals for improvements in air quality

Strategic objective:

Local air pollution problems shall be prevented and reduced to take account of the requirements of human health and welfare.

National targets:

1. The 24-hour mean concentration of particulate matter (PM₁₀) shall not exceed 50 µg/m³ on more than 25 days per year by 2005 and 7 days per year by 2010.
2. By 2010, the hourly mean concentration of nitrogen dioxide (NO₂) shall not exceed 150 µg/m³ for more than 8 hours per year.
3. By 2005, the 24-hour mean concentration of sulphur dioxide (SO₂) shall not exceed 90 µg/m³.
4. By 2010, the annual mean concentration of benzene shall not exceed 2 µg/m³, measured as urban background concentration.

9.4 Local air quality

9.4.1 Goals

Box 9.4 shows the Government's goals for improvements in air quality.

9.4.2 Policy instruments and measures

The Government will:

- Consider new measures targeted at the sources of emissions, focusing on fuelwood use, construction machinery, ships and buses.
- Consider various measures related to land-use and transport planning, including low-emission zones (where the focus is on reducing emissions from road vehicles), further testing of environmental action zones (where the focus is on factors that affect health and welfare) and whether there is a need to draw up planning guidelines.

9.5 Noise

9.5.1 Goals

Box 9.5 shows the Government's goals for noise reduction.

9.5.2 Policy instruments and measures

The Government will:

- Reduce noise from road traffic by means of measures targeted at the sources of emissions.
- Consider whether to introduce stricter limits for indoor noise levels.

Box 9.5 Goals for noise reduction

Strategic objective:

Noise problems are to be prevented and reduced to take account of the requirements of human health and welfare.

National target:

By 2010, noise annoyance shall be reduced by 25 per cent from the 1999 level.

10 International environmental cooperation, environmental assistance, and environmental protection in the polar regions

Box 10.1 Goals for international environmental cooperation and environmental assistance

Strategic objective:

International cooperation on environmental issues shall be a means of reducing global and regional environmental problems and environmental damage in Norway caused by activities and emissions in other countries, promoting sustainable development and improvements in the state of the environment in areas adjacent to Norway and in developing countries, and ensuring that international agreements and legislation provide a framework that does not weaken Norway's national environmental policy.

10.1 EU/EEA environmental legislation

10.1.1 Goals

Box 10.2 shows the Government's goals for cooperation within the framework of the EU and EEA.

Box 10.2 Goals for cooperation within the framework of the EU and EEA

National target:

Norway will seek to ensure that EU/EEA legislation provides a high level of environmental protection and promotes sustainable development.

10.1.2 Policy instruments and measures

The Government will:

- Work actively vis-à-vis EU institutions at all levels to ensure that Norwegian interests are safeguarded when new environmental legislation is developed.
- Make use of the opportunities offered by the new EEA Financial Mechanisms to promote Norwegian interests vis-à-vis the new member states.

10.2 International environmental bodies

Nordic environmental cooperation, OECD Environment Policy Committee, UNEP, GEF and CSD.

10.2.1 Goals

Box 10.4 shows the Government's goals for cooperation in international environmental bodies.

Box 10.3 Goals for cooperation within the framework of international agreements with implications for the environment

National targets

Norway will seek to ensure that the rules of the WTO system, the development of EU/EEA legislation and EFTA's free trade agreements with third parties provide for the use of environmental policy instruments and incorporate sustainable development concerns.

Norway will seek to ensure that FAO, UNDP, the World Bank and the World Intellectual Property Organisation (WIPO) incorporate environmental and sustainable development concerns more fully into their operations.

10.2.2 Policy instruments and measures

The Government will:

- Make use of opportunities to influence the development of EU environmental legislation within the framework of Nordic environmental cooperation, and work towards ambitious targets for multilateral environmental agreements.
- Follow up the OECD Environmental Strategy, focusing particularly on taking part in efforts to decouple environmental pressures from economic growth, and calculate what the costs will be if the OECD environmental strategy is not implemented.
- Focus on UNEP as the main forum for global environmental policy and take an active part in UNEP's strategic work, including the follow-up of the World Summit on Sustainable Development in Johannesburg.
- Advocate an increase in the proportion of GEF funds used for projects related to environmentally hazardous substances.

10.3 International agreements with implications for the environment

10.3.1 Goals

Box 10.3 shows the Government's goals for international cooperation that is not specifically related to the environment.

10.3.2 Policy instruments and measures

The Government will:

- Work actively to ensure that trade and investment agreements provide adequately for the use of environmental policy instruments.

Box 10.4 Goals for cooperation in international environmental bodies

National target:

Global and regional cooperation bodies shall be developed into effective tools for sustainable development, the achievement of global and regional environmental targets and effective implementation of international environmental conventions.

- Seek to ensure that relevant multilateral organisations such as FAO, UNDP, the World Bank and WIPO incorporate environmental and sustainable development concerns more fully into their operations.
- Evaluate the possibility of establishing a seed depository for agricultural material in Svalbard and work towards more sustainable management of agricultural genetic resources, for example through FAO.
- Work to achieve a good balance between intellectual property rights and the protection of traditional knowledge in the field of genetic resources, for example through WIPO.
- Maintain its financial support to the UN Global Compact and UNEP's work in the field of corporate social responsibility, including the efforts of the Global Reporting Initiative (GRI) to develop sustainability reporting guidelines.

10.4 Bilateral and regional environmental cooperation

Environment-related development cooperation, Eastern Europe, the Caucasus and Central Asia.

10.4.1 Goals

Box 10.5 shows the Government's goals for bilateral and regional environmental cooperation.

10.4.2 Policy instruments and measures

The Government will:

- Draw up an action plan for incorporating environmental considerations and sound natural resource management into Norwegian development cooperation.
- Integrate environmental considerations into the central priority areas of Norwegian develop-

Box 10.5 Goals for bilateral and regional environmental cooperation

Cooperation in the Nordic region and adjacent areas shall lead to improvements in the state of the environment, protect and enhance the natural and cultural heritage in these areas, and help to reduce and prevent transboundary pollution that may have an impact on the environment or economic activity in Norway.

ment cooperation (agriculture, fisheries, industrial development and education).

- Seek to ensure that development cooperation in general, and cooperation with China, Indonesia and South Africa in particular, promotes implementation of multilateral environmental agreements by Norway's partner countries.
- Follow up the UNECE environmental strategy for countries of Eastern Europe, Caucasus and Central Asia, giving priority to water, natural resource management and capacity building, and follow up the bilateral cooperation agreements between Norway and Kyrgyzstan and Norway and Kazakhstan.

10.5 Environmental protection in the polar regions

10.5.1 Goals

Box 10.6 shows the Government's goals for environmental protection in the polar regions.

10.5.2 Policy instruments and measures

The Government will:

- Propose amendments to the Svalbard Environmental Protection Act so that areas of special conservation value are automatically protected.
- Evaluate the regulatory and other measures needed to ensure that cruise traffic and other shipping in Svalbard operates in accordance

with the environmental protection goals and legislation for the archipelago.

- Establish a new protected area around Wijdefjorden in Svalbard to safeguard the unique Arctic vegetation, establish a new protected area on Jan Mayen to safeguard the island's unique natural environment and cultural heritage, and draw up new regulations for Jan Mayen relating to the cultural heritage.
- Strengthen cooperation with Russia on the marine environment.
- Intensify and coordinate efforts to improve the environment in northwestern Russia through the Barents Council, the Arctic Council and bilateral cooperation, focusing on the priority areas of environmental policy.
- Play an active role in international efforts to reduce emissions of radioactive substances to the marine environment.
- Strengthen efforts to reduce the risk of emissions of radioactive substances in the Arctic, in close cooperation with the Russian authorities and the international community.
- Seek to ensure that the impacts and risks of radioactive emissions to the environment from Norwegian and foreign sources are so low that internationally accepted levels for concentrations in biota are not exceeded.
- Strengthen Norway's position in the Antarctic cooperation and Norwegian environmental research in the Antarctic through activity at the research station Troll, which was officially opened for year-round use in February 2005.

Box 10.6 Environmental protection in the polar regions

Strategic objective:

The large continuous wilderness areas in Svalbard and the Antarctic shall together with the cultural heritage in these areas be protected against major developments and environmental pressures. Svalbard shall be one of the best managed wilderness areas in the world, and the settlements shall be soundly managed in order to protect the environment and promote human welfare. Norway will work to ensure that its neighbouring Arctic seas remain some of the cleanest in the world, and that their resources are used within limits that will ensure the maintenance of biological diversity both in the short term and in the long term. Norway will take part in efforts to reduce emissions of radioactive substances and the risk of such emissions that may result in pollution of the Norwegian environment.

National targets:

1. Cooperation in the Nordic region and adjacent areas and in the Arctic region shall lead to improvements in the state of the environment, protect and enhance the natural and cultural heritage in these areas, and help to reduce and prevent transboundary pollution that may have an impact on the environment or economic activity in Norway.
2. Cooperation shall be used to put the authorities and business and industry in Russia in a better position to control the country's own environmental problems properly, and to integrate Russia's environmental authorities into international and regional cooperation.
3. Utilisation of resources in Norway's neighbouring Arctic seas shall not cause species to become endangered or extinct. Populations of species that are currently believed to be endangered or otherwise adversely affected by land use, harvesting or pollution shall be conserved and if possible restored.
4. Efforts shall be made to retain the extent of continuous wilderness areas in Svalbard. By 2002, a representative cross-section of Svalbard's natural environment shall be protected against major developments and environmental pressures by the establishment of specially protected areas. Steps shall be taken to give adequate protection to marine areas of particular conservation value around Svalbard.
5. Steps shall be taken to preserve a representative selection of structures and sites belonging to the cultural heritage of Svalbard and Jan Mayen as scientific source material and as a source of emotional and aesthetic experience for future generations. Losses of such structures and sites as a result of human activity shall not exceed an average of 0.1 per cent of the total per year.
6. Transport and travel in Svalbard shall not cause serious or permanent damage to the vegetation or disturb animal life. Opportunities for experiencing the natural environment undisturbed by motor traffic shall also be ensured in areas that are easily accessible from the settlements.
7. Cooperation with the Russian authorities shall be a means of lowering the risk of radioactive pollution of Norwegian land and sea territory in order to avoid possible adverse effects on health, the environment or economic activity.
8. Emissions of radioactive substances from Norwegian sources shall be limited to levels that do not have an adverse effect on the natural environment.
9. In areas where radioactive pollution has been identified, steps shall be taken to ensure that no population groups exceed recommended radiation exposure limits through consumption of natural products or outdoor recreation activities.

11 Regional planning and land-use policy

Box 11.1 Goals for land-use policy

Strategic objective:

Land-use management in Norway shall protect and enhance the natural environment, cultural environment, landscapes and other important qualities of the surroundings throughout the country. A coordinated land-use policy shall ensure coherence between Norway's goals for local and regional restructuring and its goals for protection of the natural environment and cultural heritage.

11.1 Goals

Box 11.1 shows the Government's goals for land-use policy.

11.2 Land-use management in areas designated as agricultural areas, areas of natural environment and outdoor recreation areas

National targets:

1. Mountain areas shall be managed through a whole-landscape approach that safeguards their cultural and natural resources while providing opportunities for appropriate types of commercial development and outdoor recreation.
2. The environmental qualities of landscapes shall be safeguarded and developed through improved knowledge and targeted planning and land-use policy.
3. Areas of wild reindeer habitat shall be safeguarded.
4. The annual conversion of high-quality arable land for other purposes than agriculture shall be halved. Particularly valuable areas of cul-

tural landscape shall be documented and management plans put in place by 2010.

5. Coordinated planning procedures, including evaluation of user and environmental interests, shall be followed for the establishment of energy generation plants requiring large areas of land.

11.2.1 Policy instruments and measures

The Government will:

- Strengthen municipal and regional planning pursuant to the Planning and Building Act as a tool for coordinating land-use management and value creation in areas designated as agricultural areas, areas of natural environment and outdoor recreation areas.
- Facilitate greater cooperation between various public- and private-sector actors in the management of mountain areas and uncultivated land.
- Safeguard the key role of wild reindeer in the Norwegian mountain fauna through regional plans and the establishment of conservation areas for wild reindeer. Norway is home to most of the wild reindeer in Europe, and the Government intends to establish some areas that reflect the pattern of reindeer migration into Norway and others that are important for their survival in Norway in the future.
- Promote the development of wind power as an important renewable energy source by coordinating procedures under the Planning and Building Act and the Energy Act.
- Take biodiversity and outdoor recreation concerns into consideration to a greater extent during planning processes.
- Give greater emphasis to landscapes in land-use management, in accordance with the requirements of the European Landscape Convention.
- Provide tools that will enable municipalities to draw up an overall strategy for safeguarding important agricultural landscapes and protecting cultivated and cultivable land.

11.3 A proactive policy for the shoreline

National target:

The environmental and recreational qualities of the coastal zone shall be safeguarded, and easy access to the shoreline shall be provided for the general public.

11.3.1 Policy instruments and measures

The Government will:

- Encourage municipalities, county authorities and county governors to follow a restrictive line when considering planning proposals and applications for exemptions to the ban on building less than 100 metres from the shoreline.
- Clarify what legal authority the municipalities have for removing barriers to public access and passage near the shoreline.
- Safeguard the most attractive areas along the shoreline and make provision for public access.
- Establish a national network for coastal zone management.
- Give priority to the coastal zone when following up the work of the committee appointed to review the planning legislation.

11.4 A proactive land-use and natural resource policy for river basins

National targets:

Land-use policy for river systems shall be based on an integrated approach to management of the river landscape, zones adjoining watercourses and water resources.

11.4.1 Policy instruments and measures

The Government will:

- Establish an integrated land-use policy for the zones adjoining watercourses and ensure that planning and exemption routines safeguard national and regional interests.
- Take steps to safeguard river landscapes as a resource for outdoor recreation and as important areas for biological diversity, and to protect them from pollution and erosion.
- Strengthen the Planning and Building Act as a tool for safeguarding drinking water and groundwater resources.

11.5 Adapting holiday housing developments to the environment

National target:

Holiday housing shall be sited and designed to harmonise with the landscape and its environmental qualities, with a focus on resource use and aesthetic qualities.

11.5.1 Policy instruments and measures

The Government will:

- Promote long-term, integrated planning of holiday housing to ensure that there is a varied stock of holiday housing in accordance with national and regional social and environmental goals.
- Set out the main principles to be followed during municipal and regional planning relating to holiday housing.
- Develop criteria and tools to ensure that high standards are maintained in holiday housing areas.
- Obtain better information on the energy impact of the construction and use of holiday housing, and evaluate instruments that can be used to manage energy types and use.

11.6 Land use and the environment in towns and urban settlements

Urban settlement development shall promote a high quality of life and good health through good urban planning and design, environmentally friendly transport and the provision of good, easily accessible outdoor areas.

Near housing, schools and day care centres, there shall be adequate opportunities for safe access and play and other activities in a varied and continuous green structure, and ready access to surrounding areas of countryside.

11.6.1 Policy instruments and measures

The Government will:

- Develop criteria and tools to ensure high quality in urban development processes.
- Develop models and tools for the development of town centres and the establishment of environmental action zones.

- Encourage the business sector to focus more on reducing the environmental impact of work-related travel.
 - Draw up national policy guidelines for universal design.
 - Follow up the action plan for greater physical activity and give more emphasis to public health in planning processes.
 - Evaluate and if appropriate revise national policy guidelines to give more weight to the interests of children and young people.
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