

Norway's action plan for sustainable development

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Foreword by the Prime Minister


Norway played an active part in preparations for the World Summit on Sustainable Development in Johannesburg in autumn 2003, and now holds the chairmanship of the UN Commission on Sustainable Development, which has a central role to play in following up the summit.

The Government considers international efforts to bring about sustainable development to be of vital importance. Sustainable development also requires efforts at national level. Before the Johannesburg summit, the Government presented Norway's national strategy for sustainable development. We are now following this up with a national action plan for sustainable development, Norway's national Agenda 21, which also forms an important part of the 2004 National Budget.

The plan has a global perspective, but focuses on action in certain selected areas. It describes what the authorities, the business sector, the voluntary sector and individual people can do to bring about sustainable development. The action plan is intended to be a tool for following up the UN summits held in Rio in 1992 and Johannesburg in 2002, the Nordic strategy for sustainable development (adopted by the Nordic Council of Ministers and the Nordic Council in 2001), and other international commitments.

In accordance with recommendations from the UN summits, the Norwegian Government has taken steps to include representatives of voluntary organisations, local government, the business sector and other groups in the process of drawing up the action plan. This process attracted a great deal of interest from many different groups, and comments on the draft action plan were received from more than 70 bodies. I would like to express my thanks for the many constructive suggestions that were received. These will also be useful in the continuation of this effort.

Through the action plan, the Government wishes to ensure that sustainable development is given a permanent place on the political agenda. The Government considers it important to link the sustainable development effort to central political processes and economic policy documents. This is why the action plan has been presented as part of the National Budget and why the Government's efforts to follow up the action plan will be discussed in forthcoming national budgets and long-term planning documents.



Kjell Magne Bondevik

Part 1 of Norway's action plan for sustainable development (presented as a chapter in the 2004 National Budget)

1.1 Introduction

In this document, the Norwegian Government presents Norway's national Agenda 21, the country's action plan for sustainable development. The Norwegian version of the plan has also been published in the 2004 National Budget.

In accordance with the recommendations made by the Rio summit in 1992 (UNCED) and the Johannesburg summit in 2002 (WSSD), the Norwegian Government has taken steps to include representatives of voluntary organisations, local government, the business sector and other groups in the process of drawing up the action plan. These steps included an invitation to a wide variety of groups to submit written contributions, conferences at which central issues relating to sustainable development were discussed, and direct dialogue. The Government considered this process to be important. One of its main objectives was to encourage public involvement and awareness of the need for sustainable development. Another objective was to encourage the various participants to clarify and strengthen their roles in efforts to achieve sustainable development. A draft of the action plan was circulated for public comment, and comments were received from more than 70 bodies, including voluntary organisations, local government, employer and employee organisations, large enterprises, universities and other research institutions. These responses cover a wide range, including many specific proposals as to how Norway can contribute to sustainable development and how the bodies consulted can contribute themselves. The many concrete proposals that were received will be important in our further efforts to promote sustainable development.

Through the action plan, the Government wishes to ensure that sustainable development is given a permanent place on the political agenda. It is intended as a means of following up the Rio and Johannesburg summits, the Nordic strategy for sustainable development, and other international commitments. In addition, this is a plan for implementation of the national strategy for sustainable development, which was presented in August 2002. The Nordic strategy, *New Bearings for the Nordic Countries*, has a time horizon of 20 years. It was drawn up at the request of the Nordic prime ministers and adopted by the Nordic Council of Ministers and the Nordic Council in 2001. It includes specific targets for the period 2001-2004. The strategy is being used as a contribution towards the EU's efforts to promote sustainable development (through the Lisbon and Gothenburg strategies) and was presented to the WSSD in Johannesburg. According to the interim report on the Nordic strategy, implementation of the strategy is well under way both at national level, where the main responsibility for the work lies, and in the Nordic Council of Ministers. The strategy focuses on environmental issues and the integration of environmental considerations into all sectors of society. It is to be revised in 2004, and the economic and social dimensions of sustainable development will be given more weight in the revised version. Norway's work on its national Agenda 21 is also a contribution to these efforts.

The Government considers it important to take steps to improve the general level of knowledge in Norway about important global and national development trends with a bearing on sustainable development. If all of us know more about these issues, our actions to promote

sustainable development will be more focused and inclusive. A discussion of these development trends is therefore an important part of the action plan.

In response to the 1987 report from the World Commission on Environment and Development (WCED) and the conclusions of the 1992 Rio conference, many countries drew up green plans or strategies for sustainable development during the first half of the 1990s. These helped to put environmental issues on the agenda in many new contexts. However, the extent to which they have been followed up and implemented has varied widely.

In preparing this action plan, the Government has drawn on international experience of drawing up plans for sustainable development:

- It is important to ensure that the objectives, division of responsibilities and follow-up mechanisms set out in the plan are as concrete as possible, to avoid large-scale, lengthy processes that do not actually achieve much.
- It is important to focus attention on selected priority issues within the field of sustainable development, so that the plan is as concrete and targeted as possible. Analysing important development trends can make a significant contribution here.
- It is an advantage to link the sustainable development effort to central economic policy documents and decisions, to avoid a situation where sustainability or environmental policy are pursued as separate issues.

Many countries have organised their sustainable development efforts as a process separate from ordinary political processes, or assigned the main responsibility to a line ministry. The Norwegian Government's view is that it is essential to integrate sustainable development efforts into ordinary political activities and into the budgetary process, where many of the most important priorities are determined. The Government therefore appointed a committee of state secretaries to lead the work of drawing up this action plan. The committee was headed by a representative of the Ministry of Finance, which has the main responsibility for coordinating central government activities and for drawing up a framework for efficient resource use in Norway.

In accordance with the principle that sustainable development should be an integral part of ordinary activities in the central government administration, all the ministries will follow up the action plan within their own spheres of responsibility.

Norway's national strategy for sustainable development states that "The overriding objective for Norway and the international community is to make development ecologically, economically and socially sustainable. The basis for continued utilisation of nature and natural resources must be maintained. Within these constraints we will promote stable, healthy economic development and a society with a high quality of life, and we will play a part in helping the poor people of the world to achieve material welfare and a higher quality of life." The strategy marked the beginning of a long-term process of cooperation, the process of creating and realising our common vision of a sustainable society. The national action plan for sustainable development, or national Agenda 21, is intended to advance this process and help us to achieve our goals.

The action plan focuses more clearly than the strategy on certain selected areas. In all, there are seven of these priority areas:

1. International cooperation to promote sustainable development and combat poverty
2. Climate change, the ozone layer and long-range air pollution
3. Biological diversity and the cultural heritage
4. Natural resources

5. Hazardous substances
6. Sustainable economic development
7. Sami perspectives on environmental and natural resource management.

The global perspective of the action plan elicited a very positive response from many of the bodies that submitted comments on the draft plan, and they considered that the areas and measures it focuses on provide a good starting point for the sustainable development effort. However, several bodies, particularly the environmental organisations, commented that it should have been even more specific. The Government for its part wished to produce an action plan that could function as an independent document, presenting challenges and development trends, principles and policy instruments to be used in sustainable development efforts and specific measures to be taken in priority areas, all within a manageable framework and in a form that was readily accessible to the general public.

What is most important about the action plan is not the individual measures it describes, but its function in promoting a cohesive effort and in establishing mechanisms to ensure greater coordination of our efforts.

The work of developing a national Agenda 21 is an important step in our long-term sustainable development efforts. It is important to ensure that the plan is followed up.

To ensure that continued efforts towards sustainable development are recognised as a political responsibility, and to improve the integration of sustainable development policy across sectors, the committee of state secretaries that has led the work on the action plan has been made permanent, and will be involved in coordinating Norway's sustainable development effort. This decision has broad-based support among the bodies that commented on the draft action plan.

In preparing the action plan, the Government focused on the need for clear objectives and verifiability. Many of the bodies that were asked for comments also stressed the importance of this aspect. The action plan now includes a preliminary set of indicators of sustainable development, as was promised in the draft plan. New projections of emissions to air have also been made. The indicators represent important variables related to central policy areas that have been identified with respect to sustainable development, and can be used to measure progress relative to important national targets and international commitments. This will make it clear where adjustments might be needed in various areas of our sustainable development effort. In some important areas, further work is needed to establish indicators. In autumn 2003, a committee will be appointed to continue the development of sustainable development indicators. On the basis of its recommendations, a more complete set of indicators will be established. The bodies that were asked for comments were in favour of this proposal, and many of them wish to take part in the development of indicators.

One important way of following up the action plan will be to prepare annual reports on changes in indicators and whether we are approaching our targets. In this connection, it will also be important to update estimates of the national wealth. The reports will be circulated for public comment, and will be an important part of efforts to increase awareness of the work to promote sustainable development.

The plan proposes further development of the dialogue between the state and other actors on sustainable development. There was wide support for this proposal.

In the draft plan, it was pointed out that an information strategy to encourage more people to take part in sustainable development efforts will be important in implementing the plan. The resulting information strategy is part of the action plan presented here.

1.2 Sustainable development – solidarity and economic development within the carrying capacity of the environment

The most widely-used definition of sustainable development was first formulated by the WCED, or Brundtland Commission, in 1987, and explains that it is “a form of development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. As understood by the WCED, the concept of sustainability is based on human needs and emphasises solidarity between generations and at global level.

The WCED identified world poverty and the state of the world’s environment as the most important challenges confronting us. They were also considered to be central issues at the Rio and Johannesburg summits, held five and 15 years after the WCED report was published. In its report, the WCED pointed out that economic growth is essential for solving social and economic problems in poor countries. It showed how economic growth can add to pressures on the environment but at the same time provide resources that can be used for environmental improvement. It also pointed out that in many poor countries, environmental problems act as an important constraint on social and economic development, while a rapid increase in the population is adding to the pressure on natural resources. The WCED asked what the consequences would be of raising the poor countries of the world to a higher level in economic and social terms. It concluded that a different kind of growth is needed throughout the world to ensure that long-term developments remain within the carrying capacity of the environment.

It is not always clear what is meant by the concept of sustainable development. In the case of a renewable resource, sustainable utilisation means harvesting at a level that can be maintained over time. Sustainable development in the world as a whole or in a single country has to do with the effects on human welfare of changes in economic and social conditions and in the state of the environment and natural resources at national and global level. The factors each of us considers to be most important will depend on the values we subscribe to and our political views, and public opinion on these issues is likely to change over time. People’s views on which trends are important and on the importance of adverse trends will also vary. Some people see adverse trends as an indication that we are not following a sustainable path of development, whereas others view them as political challenges that it is possible to deal with.

However, the world community, working through the UN system, has achieved a high degree of consensus on the main challenges related to sustainable development. The Brundtland Commission identified them as being connected with world poverty and the environment. The Rio and Johannesburg summits came to similar conclusions. The 1992 summit (UNCED) adopted the Rio declaration, containing principles for environmental and development work, and Agenda 21, which is an action plan for the international community. These documents have since been of central importance in sustainable development efforts.

The Rio summit also adopted the Climate Change Convention and the Convention on Biological Diversity. In addition, it called for the preparation of a convention to combat drought and desertification. In autumn 2000, the UN adopted the Millennium Development Goals, which list central targets for the reduction of poverty throughout the world (see box 1.1). In accordance with the concept of sustainable development, these targets reflect the fact that poverty has economic, social/health and environmental dimensions. The 2002 Johannesburg summit adopted a Plan of Implementation which largely follows the same lines as the Rio decisions, but also includes specific new targets, particularly for sanitary conditions, biological diversity and chemicals. These include:

- By 2015, halving the proportion of people who do not have access to basic sanitation.

- By 2010, achieving a significant reduction in the current rate of loss of biological diversity.
- By 2020, ensuring that chemicals are used and produced in ways that lead to the minimisation of significant adverse effects on human health and the environment.

The Plan of Implementation also stresses that respect for cultural diversity is one of the essential requirements for achieving sustainable development and ensuring that it benefits all of us. The cultural heritage serves as our common memory, providing us with a sense of identity, a source of experience and knowledge and opportunities for wealth creation. At the same time, it is being threatened by damage and destruction. Small linguistic and cultural communities are under growing pressure. It is an important task to preserve cultural and linguistic diversity by supporting non-commercial forms of cultural output and communication.

Box 1.1 The Millennium Development Goals

In autumn 2000, the UN adopted the Millennium Declaration, which sets out concrete goals for combating poverty throughout the world.

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
6. Combat HIV/AIDS, malaria and other diseases.
7. Ensure environmental sustainability.
8. Develop a global partnership for development.

Specific targets with clearly defined time frames have been set for most of these goals, and indicators have been defined to measure progress towards them. For example, the targets under goal 1 are to halve between 1990 and 2015 the proportion of people whose income is less than one dollar per day and the proportion of people who suffer from hunger. Under goal 7, an important target is to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation.

The Brundtland Commission and the Rio and Johannesburg summits focused on human welfare as a measure of sustainable development. From this starting point, an understanding has emerged that sustainable development has three pillars or dimensions: economic, social and environmental. Of these, the environmental dimension is a special case because there is a risk that we may exceed the tolerance limits of the environment with irreversible consequences. Economic and social development do not show the same degree of irreversibility. Norway's environmental policy and policy for sustainable development are based on environmental targets that take account of the tolerance limits of the environment.

The challenges posed by world poverty and those related to income distribution in rich industrial countries are quite different. In rich countries, poverty is relative: certain groups have relatively low incomes compared with the average. On the other hand, the world community has identified as a major challenge the fact that a substantial proportion of the world's population is living in absolute poverty, near survival level. The Johannesburg Plan of Implementation states that "Eradicating poverty is the greatest global challenge facing the

world today and an indispensable requirement for sustainable development, particularly for developing countries.”

Since international poverty problems and threats to the state of the world’s environment have been defined as the most important challenges in relation to sustainable development, sustainable development efforts in industrialised countries such as Norway must focus on how we can deal with these challenges.

A fruitful approach to sustainability, given its relationship to human welfare and the three pillars mentioned above, is to say that in the long term, developments in welfare depend on developments in society’s capital in the widest sense of the word, generally known as the national wealth. The national wealth is made up of human capital in the form of education and know-how, health status and social conditions, real capital in the form of machinery, buildings and infrastructure, and natural capital. In Norway, as in other countries, human resources are most important for economic development and welfare.

Historically, improvements in welfare in both Western and other countries have come about through strong growth in human capital and real capital, while natural capital has been reduced. Thus, economic growth has resulted in increasing scarcity of natural capital. However, the growing pressure on the environment has also led to more attention being focused on the risk that our activities will cause serious, irreversible damage. This is one reason why sustainable development has become an important part of the political agenda.

It is of crucial importance to ensure that economic growth takes place within the framework of sustainable development. One of the overall strategic objectives of sustainable development efforts is therefore to bring about economic development based on sustainable patterns of production and consumption. The close links between economic development and serious environmental pressure in important areas must be reduced. This is known as “decoupling”, and is central to efforts by the OECD, the EU and the Nordic Council of Ministers to deliver sustainable development. These bodies are developing indicators that can tell us whether we are making sufficient progress in breaking the links between economic development and environmental pressures. Important ways of breaking these links include changing the industrial structure towards less polluting industries, improving resource and energy efficiency, using energy sources that put less pressure on the environment, and developing and using greener technologies. In the industrialised countries, the population is ageing, causing the proportion of production and consumption related to health and care to rise; this may also affect the links between overall economic activity and environmental pressure.

Weak growth of the labour force combined with the ageing of the population may result in considerably lower overall and per capita economic growth in the industrialised countries than has been the case in previous decades. Projections for Norway for the period 2002-2050 suggest that annual per capita growth will be about 1.5 per cent, or about half the annual growth rate during the past 50 years.

The OECD recommends that policy instruments designed to achieve sustainable production and consumption patterns should be applied as near the source of environmental damage as possible, and that they should distinguish between different types of consumption, targeting consumption that causes environmental pressure rather than overall consumption. Products, infrastructure and consumer attitudes all need to be changed. A complete package of measures should be developed, and wherever possible, these should be designed to have an effect upstream in the production process, i.e. producers and the extraction of raw materials.

1.3 Important trends and challenges and indicators of sustainable development

1.3.1 Trends and challenges

We are often given the impression that developing countries are in many ways moving in the wrong direction. However, both industrialised and developing countries have enjoyed general economic and social progress in recent decades. The developing countries considered as a single group have clearly been catching up with industrialised countries in important areas such as life expectancy, nutrition, access to clean water and level of education. This trend is expected to continue.

In the last 25 years, life expectancy in developing countries has risen by about eight years. The corresponding figure for the OECD countries is about six years. An important reason for the rise in developing countries is that mortality among children under five years old has dropped from 16.6 per cent in 1970 to 8.9 per cent in 2000. The rise in life expectancy partly reflects improvements in nutrition. From the mid-1960s to the late 1990s, daily per capita intake in the developing countries rose by about 600 kcal, or 30 per cent. In the industrialised countries, the rise was about 400 kcal, or 15 per cent.

However, there have been considerable differences between groups of developing countries. In sub-Saharan Africa, life expectancy has dropped sharply. Without the HIV/AIDS pandemic, in the past 25 years, peoples' life span would have risen by as much in this region as it has on average in other developing countries. And whereas the proportion of undernourished people in all developing countries considered together dropped from 37 per cent around 1970 to 17 per cent at the end of the 1990s, the proportion in sub-Saharan Africa has not changed much and is still over 30 per cent.

Per capita income for the world as a whole is now about three times as high as in 1950. Economic growth has been higher in the developing countries as a group than in the industrialised countries, but population growth has also been higher. Per capita income has grown particularly strongly in many Asian countries. In sub-Saharan Africa, in contrast, per capita GDP is still about the same as it was 40 years ago. The difference between the richest and poorest countries in standard of living has therefore increased sharply in this period. However, there is disagreement about whether the income disparity between rich and poor countries has widened in the past 30-40 years. The answer depends partly on how standards of living are measured and on how the considerable improvement in standard of living in Asian countries with large populations is balanced against the weak growth in many very poor countries with smaller populations.

In the near future, per capita economic growth is expected to be markedly higher in the developing countries than in the industrialised countries. In recent years, there have been substantial improvements in governance and economic policy in many developing countries. Levels of education are improving. Better education of women has been an important factor in reducing fertility (number of children born per woman) by about half in many developing countries in the past 25 years.

In the years ahead, the proportion of children in the population of developing countries will drop sharply in relation to the proportion of people of working age. This in itself will help to raise per capita GDP. As families become smaller, savings and investments increase, and a drop in the number of children helps to improve the health of women and children and makes it possible to offer each person a much better education. It looks as though it will be possible to achieve the agreed international target of halving the proportion of people whose income is less than one dollar per day between 1990 and 2015. However, several of the other targets,

such as ensuring that children everywhere are able to complete a full course of primary schooling by 2015, will be more difficult to achieve.

There are wide gaps between regions in social and economic development. In 1990, most of the people living in extreme poverty were in Asia, and only 20 per cent in sub-Saharan Africa. Since then, there has been a steep reduction in the number of poor people in Asia. In sub-Saharan Africa, on the other hand, there has been little change in the proportion of poor people, and the population has continued to grow relatively rapidly. As a result, it is expected that by 2015, half of all people in extreme poverty will be living in sub-Saharan Africa. Africa is the least urbanised continent. In addition, urbanisation in this region appears to be making relatively little contribution to economic growth while creating major new social and environmental challenges.

Weak social and economic development in sub-Saharan Africa is the result of many factors acting together: poor governance, in some countries combined with widespread corruption and poor economic management, rapid population growth, the effects of HIV/AIDS and disease in general, undernourishment, high transport costs as a result of poor infrastructure and distance from waterways, and a steep drop in raw material prices in the last 20 years, which has had serious negative effects on the balance of payments and budgets in many countries. From the early 1980s to well into the 1990s, per capita GDP declined by roughly 1 per cent per year in these countries. In the last few years, there has been modest growth in per capita GDP, and growth is expected to strengthen. This is partly a result of better governance in many countries, including improvements in public-sector financial management. Many countries are being granted debt relief provided that they draw up poverty reduction strategies with more emphasis on health and education. International studies show that investing in human capital by giving priority to health and education provides great benefits for society.

The quality of official development assistance (ODA) is improving markedly, and a growing proportion of ODA is being targeted towards countries where the level of poverty is very high and that are able and willing to take steps to reduce it. Until the 1990s, a country with good governance and a good economic policy, but with a high level of poverty, did not receive more assistance than one where governance was poor. The distribution of bilateral aid reflected strategic interests, Cold War priorities and ties with former colonies. The Nordic countries were an exception to this in that their aid targeted poor countries. During the 1990s, development assistance to poor countries dropped by 7 per cent despite the fact that governance improved in many of the recipient countries. This trend has now been reversed.

Development assistance is an important source of income for the poorest countries. In several of them, ODA corresponds to about 10 per cent of GDP and about half of public-sector expenditure. Because governance has improved in developing countries, a larger volume of development assistance can be used effectively to enhance development and to reduce poverty. However, many of the world's rich countries are a long way from achieving the UN goal of allocating 0.7 per cent of GNI to development assistance.

Barriers to trade in the rich countries are particularly high for products from poor countries such as foodstuffs and textiles. Elimination of trade barriers in these areas will be an important step, especially for poor people in developing countries. A growth in exports from developing countries is essential as a means of providing them with revenues that can be used to import technology to promote economic development.

Improving market access for the developing countries and their ability to export goods, and increasing the quantity and quality of developing assistance, are important tasks for the rich countries, and they are crucial to social and economic development in poor countries. It is particularly important to focus on economic and social progress in sub-Saharan Africa.

The world population quadrupled during the twentieth century, and reached 6.3 billion in 2003. It is expected to reach 8.9 billion in 2050. Population growth is one of the most important challenges related to sustainable development. The annual growth rate of the world population reached a peak of just over 2 per cent in the late 1960s, and has now dropped to 1.2 per cent. By 2050, the growth rate is expected to be only 0.3 per cent. When growth was highest, the world population was rising by about 90 million a year, as against 77 million at present. The rise in the population up to 2050 will take place in the developing countries, with relatively most growth in the poorest of these. This puts pressure on natural resources and the environment in these countries. A large number of the poor people in the world are directly dependent on natural resources and ecosystems that are in balance to meet their basic needs. Pollution of soils, air and water and low ecological productivity can thus have very severe effects on the poorest groups of people.

In the industrialised countries, the proportion of older people in the population will rise gradually. In Europe, the total population is expected to decline, and the proportion of people over 60 years old to rise from 20 per cent in 2000 to 35 per cent 2050. This will slow down economic growth, result in a steep rise in the proportion of resources used for pensions, nursing and care and have a major impact on public finances. The ageing of the population and the need to maintain a high level of labour force participation and satisfactory government finances are the most important economic and social challenges facing Norway and other industrialised countries in the years ahead. According to the mid-range scenario in the most recent population projections drawn up by Statistics Norway, the number of people aged 67 or more is expected to rise by 80 per cent compared with the number between 19 and 67 years of age. If the rules for the National Insurance Scheme are retained unchanged, expenditure on old age and disability pensions measured as a proportion of mainland Norway's GDP is expected to rise from about 9 per cent in 2002 to almost 20 per cent in 2050.

Generational accounts are designed to show the intergenerational distributional effects of continuing today's budget policy, taking into account demographic trends and the commitments contained in today's national insurance scheme. Calculations based on the proposals in the 2003 Revised National Budget suggested that budgetary tightening of the order of NOK 50-75 billion would be needed to redress the generational imbalance. New calculations based on the proposals in the 2004 National Budget and updated estimates of future petroleum revenues indicate that this has now increased to roughly NOK 70-95 billion.

Economic growth and a rising population will continue to put pressure on natural resources and the environment. It is therefore essential to ensure that production and consumption develop in a sustainable way, so that there is sufficient ecological space for the developing countries to make economic and social progress.

Since the early 1900s, there has been a real decline of more than 2 per cent per year in the prices of industrial raw materials. In the period 1980-1998, the prices of these raw materials were halved in real terms. Price developments for raw materials have been an important cause of the weak economic performance of many developing countries, especially in sub-Saharan Africa. Because weak economic development in industrialised countries adversely affects the volumes and prices of exports from developing countries, the Brundtland Commission pointed out the importance of growth in industrialised countries for development in developing countries.

The demand for raw materials has grown more slowly than GDP because raw materials are being used more efficiently and because of structural changes in the economy. At the same time, the productivity of extraction of both non-renewable and renewable resources has been

growing strongly. For most non-renewable resources, the discovery of new reserves and technological advances that make it possible to utilise a greater proportion of the resources have helped to maintain a fairly high ratio of extractable reserves to production.

The nutritional situation will probably improve, mainly as a result of a continued rise in the productivity of agricultural land in developing countries. The demand for food will rise more slowly in future because the world population is growing more slowly and a growing proportion of people have sufficient food. However, water shortages and climate change may have an adverse effect on agricultural production in many poor countries. Poor countries in tropical regions may be particularly badly affected by climate change and a rise in sea level. Agriculture accounts for a large proportion of the economy in these countries, and they have very limited resources for adaptation to climate change. This means that it is necessary to focus more on long-term soil conservation.

There have been a number of positive environmental developments in industrialised countries in recent decades. Environmental pressure has been decoupled from economic growth in many areas, such as emissions of acidifying substances to air and emissions of certain hazardous substances. However, there have been negative developments in certain very important areas, especially those related to global environmental problems.

Climate change is the greatest environmental problem we are facing at global level. The UN Intergovernmental Panel on Climate Change (IPCC) has presented documentation that the global climate is changing. The global mean surface temperature is rising; according to the IPCC, by about 0.6 °C during the 20th century. The sea level has risen by between 10 and 20 cm in the last 100 years. According to the IPCC, these changes are related to a considerable rise in atmospheric concentrations of greenhouse gases. The IPCC's Third Assessment Report concludes that there is now "new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities". As a result of global warming, the IPCC expects that extreme events such as drought, storms and floods will continue to become more frequent and more severe. Sectors such as agriculture, forestry and fisheries are particularly vulnerable to climate change.

The main source of the rising greenhouse gas concentrations in the atmosphere is carbon dioxide (CO₂) emissions from fossil energy use, which are expected to rise. In *World Energy Outlook 2002*, the rise in global CO₂ emissions in the reference scenario (which does not assume that any new measures are introduced to mitigate climate change) is estimated at 45 per cent from 2000 to 2020 and 70 per cent from 2000 to 2030. Even if all industrialised countries meet their commitments under the Kyoto Protocol, emissions will rise substantially because they are increasing so rapidly in developing countries. This underlines the need for new and more comprehensive climate agreements after the first commitment period under the Kyoto Protocol (2008-2012) and for an accelerated changeover to the use of renewable energy. Reduced use of fossil energy will also reduce health and environmental problems related to local and regional pollution.

In Norway, CO₂ emissions rose by about 21 per cent and aggregate greenhouse gas emissions by about 3 per cent from 1987 to 2002. However, aggregate Norwegian greenhouse gas emissions per unit of GDP were reduced by about 30 per cent in the same period, and CO₂ emissions per unit of GDP by just over 20 per cent.

It has been estimated that Norway's aggregate greenhouse gas emissions will rise from about 52 million tonnes in 1990 to about 61 million tonnes in 2010, expressed as CO₂ equivalents, unless new measures to mitigate climate change are introduced. Under the Kyoto Protocol, Norway's emissions ceiling is an annual average of 52.5 million tonnes CO₂ equivalents for the period 2008-2012. Thus, to meet its Kyoto commitment, Norway must reduce its

emissions by 8-9 million tonnes in 2010. The reduction can be achieved at the lowest possible cost by ensuring a good balance between measures implemented in Norway and those implemented in other countries. If Norwegian enterprises are given the opportunity to take part in international emissions trading schemes, they will have incentives to carry out measures in other countries when this is less costly than reducing emissions in Norway.

In 2002, the Government submitted a proposition to the Storting (national assembly) requesting consent to Norwegian ratification of the Kyoto Protocol (Proposition No. 49 (2001-2002) to the Storting). In this connection, an estimate of the proportion of Norway's commitment it would be cost-effective to carry out in other countries was calculated. The answer depends on the international quota price, which is very uncertain. The calculations indicated that given an international quota price of NOK 50 per tonne CO₂ equivalents, it would be cost-effective to carry out about 70 per cent of the measures in other countries, whereas if the quota price was NOK 150, this dropped to about 40 per cent. If Norway were to choose not to take part in international emissions trading, the quota price in Norway would have to be about NOK 350 for the country to meet its commitment. Thus, the calculations indicate that Norway can make considerable savings by taking part in international emissions trading, particularly if the permit price is low.

Widespread losses of biological diversity are occurring throughout the world. There are various reasons for this, including deforestation, overexploitation of species, acidification, emissions of hazardous substances, changes in land use and the introduction of alien species. All these pressures also alter the ability of ecosystems to deliver goods and services such as food, cleansing of water, mitigation of the effects of flooding and pollination of plants and trees. If climate variations or climate change result in more variable weather, damage to both nature and people will increase. This means that natural resource management involves great challenges. In 1998, the Norwegian Red List of threatened species included about one in every five of the 14 600 species that had been investigated in Norway. The Red List includes everything from species that are already extinct or in danger of becoming extinct in Norway to those that need to be monitored because their populations are or have been showing negative trends.

Inputs of acid rain to Norway have been substantially reduced in the last 20 years as a result of international cooperation, which has resulted in considerable reductions in sulphur emissions in European countries. The proportion of the area of Norway where critical loads for acidification are exceeded was reduced from 30 per cent in 1985 to 20 per cent in 1995. The remaining areas with an excessive acidification load are in Southern and Western Norway. The Gothenburg Protocol requires reductions in emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOCs) and ammonia (NH₃), and will reduce acidification further. The emission ceilings specified in the protocol are to be met by 2010. Norway ratified the protocol on 30 January 2002. It has been calculated that only 7-8 per cent of the area of Norway will be affected by acidification exceeding critical loads when all the commitments under the Gothenburg Protocol have been met. It is also expected that eutrophication of soils will be considerably reduced and problems related to ground-level ozone in Norway will be eliminated once these commitments have been met.

Under the Gothenburg Protocol, Norway has undertaken to reduce its annual emissions to the following ceilings: sulphur (as SO₂) 22 000 tonnes (corresponds to a reduction of 4 per cent from 2002), nitrogen oxides (NO_x) 156 000 tonnes (27 per cent down from 2002), ammonia (NH₃) 23 000 tonnes (8 per cent down from 2002) and volatile organic compounds (VOCs) 195 000 tonnes (42 per cent down from 2002). The policy instruments already adopted are expected to ensure that the commitments for SO₂ and VOCs are met. The emission figures for NH₃ are being revised, and it is therefore uncertain whether it is necessary to implement

further measures to meet Norway's commitment or not. However, projections suggest that it may be difficult to meet Norway's commitment as regards NO_x. Projections of NO_x emissions (without new measures) indicate that they must be reduced by 31 000 tonnes (about 17 per cent) by 2010 to meet Norway's commitment. Cost-effective reduction of NO_x emissions requires the successful implementation of measures to reduce emissions from shipping, which is where most of the low-cost measures can be carried out. If this proves to be difficult because of international rules or for practical reasons, it will be necessary to reduce emissions in other sectors where the costs may be considerably higher.

A number of chemicals break down very slowly in the environment and can therefore accumulate in food chains, where they represent a serious threat to biological diversity, food supplies and the health of future generations. The most dangerous of these are persistent organic pollutants (POPs) such as PCBs and dioxins, which can cause damage even at low concentrations. The Arctic Monitoring and Assessment Programme (AMAP), under the Arctic Council, has shown that there are relatively high concentrations of POPs in animals that are used for food in the Arctic region. Most of them can be transported for long distances in the environment. They may cause diseases such as cancer or allergies, have adverse effects on reproduction or damage the genetic material of plants and animals.

Even though emissions of some of the most dangerous chemicals have been reduced, overall use of chemicals has been increasing. An estimated 50 000 chemicals are used today within the European Economic Area (EEA). We have little information on the health and environmental impacts of many of these.

Norway is responsible for managing large energy resources. Petroleum is Norway's most important non-renewable natural resource, and must be managed so that extraction of the petroleum reserves is weighed against the increase in other parts of the national wealth, and so that the impact on the environment and marine resources is taken properly into account. Hydropower, which is a renewable resource, does not contribute to greenhouse gas emissions, but further development of Norwegian river systems will have an impact on the natural environment and perhaps on biological diversity. Over time, fossil fuels must be phased out and replaced with other, less polluting energy sources. This is partly to mitigate the impact on the global climate. New renewable energy resources and management of CO₂ emissions from the use of fossil fuels must become more important elements in Norwegian and international energy supplies.

Soil resources are vulnerable at both global and national level. Only three per cent of the area of Norway is cultivated. As part of a sustainable management regime, cultivated and cultivable areas must be safeguarded so as to maintain opportunities for food production for future generations, both globally and nationally. The results of the current WTO negotiations will be of crucial importance for further developments in the agricultural sector.

The timber harvest (roundwood removals) in Norway has been considerably reduced in recent years, and the net increment in the growing stock is currently around 15 million m³. Long-term investments in forestry have dropped, and the number of people employed in the sector has also been reduced. However, Norway still has important domestic industries (manufacturing of wood products and the pulp and paper industry) based on its forests.

Many of the world's fish stocks are overexploited, and the state of certain Norwegian fish stocks is also giving cause for concern. Overfishing has previously led to the collapse of stocks of Norwegian spring-spawning herring, North Sea herring and North Sea mackerel. The collapse of the Norwegian spring-spawning herring stock in the late 1960s resulted in a change in its migration patterns, so that the stock was not available in sufficient quantities to support a fishery for 20 years. However, persistent efforts to rebuild the stock have given

good results, and it can now support a profitable fishery. The state of some other spawning stocks, for example North Sea cod, give cause for concern. Sustainable management of living marine resources in Norwegian waters must be based on reliable knowledge. As far as possible and appropriate, management of each species and stock must also be based on long-term management plans. We particularly need more knowledge of the links between the physical, chemical and biological elements of the marine environment, on biological diversity, and on interactions between different marine species.

Norway's aquaculture industry has grown strongly in the past ten years. In the early 1990s, annual production of salmon and trout was about 150 000 tonnes, but this had risen to 530 000 tonnes in 2001. In 1998, the Norwegian fish farming industry accounted for half the total world production of Atlantic salmon. The aquaculture industry has a large economic potential and helps to provide new employment in outlying districts. The most important environmental problems for the industry are related to salmon lice and escaped farmed salmon, which are a threat to wild Norwegian salmon.

Reindeer husbandry is an integral part of the Sami culture and sense of identity, and is very important both for Sami communities and for other indigenous peoples in the northern areas. The gross area of reindeer grazing in Norway is about 140 000 km², or more than 40 per cent of the total area of the country. Reindeer husbandry is now experiencing problems related to overgrazing, losses of reindeer to predators and other developments in grazing areas. To ensure that reindeer husbandry is ecologically sustainable, it is necessary to implement measures to improve social and economic sustainability in certain reindeer husbandry areas.

The land use policy pursued at municipal level is important for sustainable development at local level and for environmentally appropriate land use. There is often conflict between development of the built environment and the natural environment. Buildings have a negative impact on the environment in various ways. In Norway, the housing and construction sector accounts for 40 per cent of energy use, 40 per cent of the materials used and 40 per cent of all waste that is landfilled. Resource use in this sector is rising. The choice of areas to be developed can have a major effect on society's transport needs and is one of the important factors determining the environmental challenges related to the transport sector.

Biological diversity and the cultural landscape are important for the types of outdoor recreation that are traditional in Norway, and that require little in the way of resources. Outdoor recreation is health-promoting, improves the quality of people's lives and promotes enjoyment of the countryside. It also encourages support for environmental and cultural heritage protection and increases people's awareness of environmental issues.

1.3.2 Indicators of sustainable development

Adequate knowledge of developments in various fields and analyses of possible future trends and how they may be influenced by different policy alternatives form an important basis for efforts to promote sustainable development. The Government therefore considers it important to develop appropriate indicators of sustainable development and to draw up projections of trends for central indicators. One of the main objectives of such projections is to obtain a consistent picture of economic perspectives and environmental trends as a central part of the Government's basis for decision-making. Calculations of the national wealth are an important starting point for evaluating whether or not we are on a sustainable path of development. Calculations of the different components of the national wealth need further work.

A considerable amount of work is already in progress internationally on the development of indicators, for example in the OECD, the EU and the Nordic Council of Ministers. Norway is playing an active role in this work. In some areas, it is useful to find indicators that are

comparable across countries. Norway's choice of indicators should therefore be coordinated with international developments.

These indicators are intended as a tool in further efforts to achieve sustainable development. They should help us to focus on central political goals and on cost-effective policies for achieving these goals, see sections 1.4 and 1.5. We therefore need a set of indicators that provide information on current status and problems relating to world poverty, the state of the environment, the state of the economy, etc., and indicators that will help us to focus on policy instruments and measures to ensure efficient use of resources.

Indicators can be used both to describe developments in different fields and as a basis for policy development. If they are used for the latter purpose, it is important to realise that the information they provide is limited. For example, the indicator "development assistance as a percentage of GNI" tells us nothing about the quality of Norwegian development assistance. In general, indicators only give information about part of an overall picture. They must therefore be interpreted and supplemented with relevant background information and analyses, so that the basis for policy development is made as complete as possible.

The rest of this section focuses on a few selected indicators, just as a set of main indicators is used for the Norwegian economy. These must be supplemented with more detailed indicators during the formulation of policy:

Some of the indicators are decoupling indicators, which measure the extent to which it has been possible to decouple environmental pressures from economic growth. Decoupling indicators may for example measure environmental pressure (or factors that cause environmental pressure) relative to economic activity (development in GDP). We distinguish between relative and absolute decoupling. Absolute decoupling occurs when an environmental pressure indicator is stable or decreasing when economic activity is growing. Relative decoupling means that the indicator is increasing but more slowly than economic activity. Decoupling indicators are not suitable for monitoring the overall pressure on the environment. OECD studies show that relative decoupling is very widespread in member states (for example greenhouse gas emissions) and absolute decoupling is also occurring quite commonly (for example emissions of sulphur and lead).

The Government's preliminary set of main indicators of sustainable development is based on the work of the OECD, the EU and the Nordic Council of Ministers. The indicators focus on central areas such as development cooperation, climate change, biological diversity and long-range air pollutants. The indicators relating to Norway's support to developing countries focus on development assistance and imports from developing countries. The inclusion of an indicator that reflects Norway's contributions to investment in developing countries should also be considered by the committee that is to be appointed to continue the development of sustainable development indicators. The committee should take into account the OECD's work and the work that has been done by independent research institutions on indicators of policy consistency and coherence.

The indicator set in the table below does not include indicators for hazardous chemicals and natural resources. It is a difficult task to develop satisfactory indicators for these areas. Hazardous substances are found as constituents of many different products and are used in many production processes. Indicators should focus on the most dangerous substances, including heavy metals (lead, cadmium and mercury) and persistent organic pollutants, or POPs (e.g. PCBs, DDT and dioxins). One possibility would be to calculate an aggregated indicator for the concentration of selected heavy metals and POPs in selected ecosystems, plants or animals. Indicators of sustainable management of natural resources (including fish

stocks and forests) must give information about whether harvesting of the resources is sustainable.

Table 1.1 Preliminary set of main indicators of sustainable development. The table also shows whether each indicator is also used by the OECD, EU or Nordic Council of Ministers (Nor)

Policy area	Indicator	Data for selected years					Target/commitment
		1993	1997	2000	2002	2003 ¹	
International cooperation for sustainable development and combating poverty	- Norwegian ODA as % of GNI (<i>OECD</i>)	0.89	0.86	0.80	0.89	0.93	1.0 per cent of GNI by 2005
	- % of gross Norwegian bilateral aid to least developed countries (LDCs)	<u>Year: 2000 2001 2002</u> 34.9 35.2 39.7					40 per cent of total ODA to LDCs
	- Imports from developing countries to Norway as % of total ²	<u>Year: 1990 1995 2000 2001 2002</u> 8.2 9.4 11.2 10.7 11.3					
	- Imports from LDCs to Norway as % of total ² (<i>OECD</i>)	0.63 0.48 0.43 0.40 0.41					
Climate change and long-range air pollutants	- Emissions of: Greenhouse gases (million tonnes CO ₂ equivalents)	1985	1990	1995	2002 ³	2010 ⁴	52.5 (average for 2008-2012) 156 by 2010 22 by 2010 195 by 2010 23 by 2010
		53 ⁵	52	52	55	61	
	NO _x (1000 tonnes)	213	224	221	214	187	
	SO ₂ (1000 tonnes)	98	52	33	23	26 ⁸	
	VOCs (1000 tonnes)	231	294	367	334	160	
	NH ₃ (1000 tonnes)	23 ⁵	23	26	25 ⁶	--	
	(<i>OECD and Nor. EU uses % change in greenhouse gas emissions since 1990</i>)						
	- Emissions per unit of GDP (index 1990=100): Greenhouse gases (<i>Nor</i>)						
	NO _x	103 ⁵	100	83	71	70	
	SO ₂	107	100	82	64	50	
	VOCs	212	100	53	30	30	
	NH ₃	88	100	103	77	32	
- % of area of Norway where critical loads for acidification are exceeded	103 ⁵	100	94	74 ⁶	--		
	30		20		7-8		
Biological diversity	- % of area of Norway protected (<i>Nor. EU uses % of area protected under Habitat Directive and Birds Directive</i>)	1990	1993	1996	2002	2003	
		5.4	6.3	6.4	8.0	9.8	
	- No. of threatened species in Norway ⁷ ; as % of species investigated in parentheses (<i>Nor</i>)	<u>Year: 1992 1998</u> 1 839 (18) 3 062 (21)					

		1995	1996	1997	1998	1999	2000	2001
Sustainable economic development	- Average retirement age (OECD and EU)	58.3	58.5	58.5	58.4	57.8	58.2	58.4
	- Life expectancy at birth (mid-range scenario from Statistics Norway)	<u>Year: 1950 1970 1990 2003 2020 2050</u> Men: 69.9 71.0 73.4 77.0 79.8 84.7 Women: 73.2 77.3 79.8 82.3 84.6 88.6						
	- Public-sector expenditure on old age and disability pensions (%of mainland Norway's GDP) (OECD)	<u>Year: 2002 2010 2020 2030 2040 2050</u> 9.2 10.8 13.6 16.5 18.8 19.7						
	- Labour force participation rate (age 16-74)	<u>Year: 1972 1980 1990 2000 2002 2007</u> Men: 78.1 79.3 76.0 77.9 77.4 -- Women: 44.7 55.1 62.4 68.8 69.6 -- Total: 61.4 67.2 69.2 73.4 73.5 71.7						

1 Preliminary figures.

2 Excluding imports of ships and oil platforms.

3 Preliminary figures.

4 Projections based on the assumption that no new measures are introduced.

5 Figures for 1987.

6 Figures for 2001.

7 In 1992 a little more than 10 000 species were evaluated, and in 1998 almost 15 000. It is estimated that there are around 60 000 species in Norway. Thus, numbers and percentages of threatened species will not be completely comparable over time, but the indicator can nevertheless give a useful idea of state and trends.

8 The projection does not take into account reductions resulting from voluntary agreements. The agreement between the Norwegian authorities and the Federation of Norwegian Process Industries is expected to reduce SO₂ emissions below the ceiling of 22 000 tonnes.

-- Data not available.

Sources: Statistics Norway, Norwegian Pollution Control Authority, National Insurance Administration and Ministry of Finance.

1.4 Principles and policy instruments for sustainable development

Norway's sustainable development policy must be based on certain principles, and a set of policy instruments is also required to translate targets and principles into practice. The next section describes the principles and policy instruments on which the Government's sustainable development efforts are based.

1.4.1 Principles

Stewardship responsibility

There are clear parallels between the idea underlying sustainable development, that the present generation should meet its needs "without compromising the ability of future generations to meet their own needs", and the concept of stewardship responsibility and the ideas on which the generational accounts are based. In both cases, the principle is that we all have a responsibility to pass on to the next generation a world that is at least in the same state as it was when we inherited it. The implication is that decisions at various levels of society must be sustainable: this should not be seen as a hindrance, but as a cornerstone of social development, or as a guiding principle that in simple terms states that a step forward in one field must not result in a larger step backwards in another. Stewardship responsibility is a central part of this Government's fundamental values, as described in the Sem Declaration setting out its political platform. The declaration states that, "The Earth provides the basis for

all human life, and we have a responsibility to manage it in such a way that future generations have the same opportunities to experience the natural world and make use of natural resources as the present generation. We will use the environment and natural resources in such a way that they benefit the community as a whole and within the limits of their capacity for renewal.” Thus, stewardship responsibility includes a requirement to ensure that economic development is adapted to long-term management of the environment and natural resources. This means that one of the main challenges that must be met in giving substance to the idea of stewardship responsibility during policy development will be to find ways of bringing about decoupling, or breaking the links between economic development and environmental pressures in areas where these are too close today. The Government will work towards a steady reduction of the environmental pressures associated with economic growth.

The precautionary principle

The precautionary principle states that “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” The task of environmental policy is to protect the ecological cycles that are the basis for all production of goods and services. The precautionary principle is also in line with the idea that we should look at developments in a long-term perspective, since the consequences of irreversible changes are something we would have to live with indefinitely. Examples of irreversible changes include the loss of species and some of the effects of emissions of hazardous substances and radioactive substances. Climate change may also be very difficult to reverse. It is essential to use the precautionary principle as a basis for all sectors and activities that put pressure on the environment and natural resources. In the industrialised countries, which have reached a high level of economic and social development, irreversible environmental change is perhaps the most important challenge relating to sustainable development at national level.

The ecosystem approach

Ecosystems such as forests, oceans, coastal waters and fresh water systems provide important functions and services. Services such as cleansing of water, soil formation and flood control so not appear in the market economy, but are nevertheless vital for standards of living. According to the Convention on Biological Diversity, countries are required to take ecological systems and their functions into consideration as fully as possible. This idea has been further elaborated internationally to provide a framework known as the ecosystem approach, based on a number of principles. One is that management should be based on all types of information, including scientific, traditional and local knowledge, to maintain ecosystem functioning and ensure that human activity takes place within the tolerance limits of the natural environment. Another is that management should be evaluated on a continuum from intensive use to strict protection. Thirdly, management should be planned so that it is adapted to temporal ecological variations and effects on neighbouring ecosystems. The principles also include acceptance of the needs and aims of different sectors and user groups, and state that management should be decentralised to the lowest appropriate level. The Convention on Biological Diversity, the Convention on the Law of the Sea, the UN agreement on high seas fisheries, the management plan that is to be drawn up for the Barents Sea, the planned EU strategy to protect the marine environment and the framework directive on water policy are all examples of agreements and processes that are based on the ecosystem approach.

The polluter-pays principle

This principle has a number of important implications. By putting a price on the environment and on pollution of the environment, we can link the environment and the economy, which is

in keeping with the idea that human welfare is a central aspect of sustainable development. If polluters are charged for pollution they cause according to common rules, environmental standards will rise and emissions will be reduced where it is cheapest, so that environmental improvements are brought about in a cost-effective way. By relating the costs imposed on polluters to the pollution they cause and not only requiring reductions in emissions, we can give polluters incentives to develop and use environmentally-friendly technology. This improves efficiency in the long term. Payments by polluters for the residual pollution they release can allow lower taxation of labour and help to reduce unemployment. Thus, the use of policy instruments based on the polluter-pays principle can reap double dividends: environmental pressure is reduced and society uses other resources more efficiently. The Government will continue the use of green taxes and regularly consider the introduction of new taxes of this kind, especially in relation to hazardous substances

Common but differentiated responsibilities

A central principle that has evolved during work on sustainable development in the UN system is that the countries of the world have “common but differentiated responsibilities” to deal with global environmental problems. This reflects the fact that the rich countries are mainly responsible for generating these problems, and also have the largest economic resources for tackling them. At the same time, the principle means that not even the poorest countries can ignore the need to take environmental concerns into account. Thus, the principle includes two elements: common responsibilities and equitable distribution of burdens between countries. The fact that it is the industrialised countries that must meet quantitative emission ceilings under the Kyoto Protocol is an example of the application of this principle. The implementation of the principle requires both international cooperation for economic and social development and long-term management of the environment and natural resources. The Government wishes Norway to take the lead in this field in applying policy instruments, finding cooperative solutions and developing environmental technology.

Coordination across policy areas

Efforts to promote sustainable development require an integrated approach to economic, social and environmental aspects. To achieve this, we must develop cross-sectoral policies, integrate policy between different decision-making levels, integrate the various considerations within each sector and find policy instruments that can promote all these developments in a cost-effective way.

Joint responsibility and joint efforts

Everyone can contribute to sustainable development. Coordinated and effective participation by the business sector, the voluntary sector, central and local authorities and individual people requires a common understanding of the challenges we are facing and opportunities for different groups and people to contribute to sustainable development. To achieve this, the different actors must have the best possible access to all relevant information and there must be a satisfactory dialogue between the authorities and other groups.

Sustainable development involves important challenges for private companies and market actors. Many forms of economic activity have an impact on the environment and on social conditions. Those who cause such impacts must also have a responsibility for dealing with them. The growing importance attached to corporate social responsibility shows that more and more companies are taking this seriously, either because investors or customers are requiring it, or because the companies themselves see benefits in sustainable development. This is a positive trend that the Norwegian authorities should support and encourage.

1.4.2 Policy instruments

International cooperation and research and development are an essential basis for sustainable development, and thus important tools that must be used in efforts to combat world poverty and serious environmental threats. A wide variety of policy instruments are also needed to tackle various environmental problems at national level. Three main types of policy instruments are often distinguished: economic instruments, administrative instruments and guidance and information. Economic instruments use economic incentives to influence the behaviour of consumers and businesses, while administrative instruments do so more directly by making some kinds of behaviour mandatory and prohibiting others. Making information available helps businesses and consumers to make environmentally-sound choices. Other important policy instruments in efforts to promote sustainable development are public procurement policy and mandatory environmental impact assessment. Different policy instruments should be considered together so that they do not counteract each other, and so that one particular environmental problem is not regulated twice. For example, development cooperation is an important policy instrument in the fight against world poverty. It is therefore important to ensure that instruments used in other policy areas do not counteract efforts to reduce poverty, but support them.

International cooperation

Close international cooperation is of crucial importance in achieving sustainable development. International cooperation is needed to achieve the Millennium Development Goals, to deal with poverty and to tackle international environmental problems. The objective of Norway's active international engagement should be to achieve wide adoption of ambitious agreements that will help us to achieve desired outcomes as cost-effectively as possible. As a "downstream" country, a recipient of environmental problems, Norway has clear interests and special responsibilities, for example as regards the marine environment and the Arctic environment. Norway will therefore continue to play a very active role based on the experience, expertise and position it has acquired in international cooperation on such problems. International cooperation has resulted in success in a number of areas, for example efforts to reduce emissions of ozone-depleting substances, which resulted in adoption of the Montreal Protocol. In other areas, such as climate change and hazardous substances, less progress has been made. It is therefore important to strengthen international cooperation and encourage as many countries as possible to take part and to meet international commitments. A lack of support for multilateral environmental agreements and failure to implement them increases the risk that companies will move their operations to countries that have not accepted international obligations. This can restrict options for domestic policy instruments. Through the Agreement on the European Economic Area (EEA Agreement), Norway is cooperating with the EU and EFTA states on the development and implementation of EU environmental legislation. This is extensive and is ambitious in many fields, and has a substantial impact on national legislation and policy instruments in Norway and other countries that are parties to the EEA Agreement.

There are close links between Norway's international efforts and its domestic policies. Action taken in Norway is often a step in following up international agreements, and Norway's ability to make its voice heard in the international arena depends on the kind of domestic policy it pursues.

Research and development

Research on development-related issues, environmentally-friendly technology and environmental science, and the integration of a global perspective into all research are

essential if we are to break the links between economic development and environmental pressure. International cooperation on research and development can make it easier to achieve good results in areas where expertise and resources are shared between several countries. Norway contributes both financial and human resources to various international research programmes.

Norway can make an important contribution to the development of environmentally-sound technology in fields where the country has special expertise. It is also important to make use of clearly-formulated, long-term environmental policy instruments, so that companies will find it profitable to develop and use environmentally-sound technology. Economic instruments often provide a strong incentive to develop and introduce new technology.

Environmental problems have gradually become more complex, and include local, regional and global issues. Losses of biological diversity and climate change are examples of such problems. There is an urgent need to document and understand current environmental changes as a basis for determining what action to take and how to adapt to them. These are cross-sectoral challenges, and can often only be understood and solved by comprehensive analysis of the causes of problems, trends, impacts and possible action and solutions.

Long-term basic research is the overall priority of the Government's research policy. In addition, four priority areas have been identified, all of which are relevant to sustainable development (marine research, medical and health-care research, research on information and communication technology, and research involving both environment and energy issues).

Research related to environmental impact assessment and the precautionary principle is important to efforts to reduce the environmental pressure caused by economic activity. Scientific research into environmental issues is also needed to provide support for the use of environmental impact assessments and the application of the precautionary principle. Research on development issues provides the necessary basis to ensure that Norway is following a poverty-reduction policy based on the best available knowledge. Norwegian universities and several other research institutions commented on the draft action plan, and their comments were generally positive. However, there were also criticisms, in particular from the Program for Research and Documentation for a Sustainable Society and the Centre for Development and the Environment, both at the University of Oslo, which considered that the plan should have been more concrete. The universities pointed out that research in a number of areas can make a very important contribution to sustainable development, and that it is important to increase the overall research effort.

Economic instruments

Environmental taxes, tradable emission quotas, deposit and return schemes and subsidies for environmentally-friendly production or consumption are all examples of economic instruments. They influence the behaviour of companies and consumers by making it worth their while to act in a different way. Economic instruments ensure that the efficiency of the price mechanism is used in efforts to limit pressure on natural resources and the environment, and that the polluter-pays principle is applied in practice. Companies and households will reduce their use of products on which environmental taxes are imposed because it is in their own financial interest. The effects of environmental taxes will depend on what other options are available. The OECD recommends greater use of economic instruments. Tradable quota schemes are being introduced in a number of countries, for example to reduce greenhouse gas emissions. Under such schemes, action to reduce pollution is taken where the greatest environmental improvement can be achieved at the lowest cost.

Administrative instruments

These include direct regulation and agreements between the authorities and branches of industry or individual companies. The most widely used kinds of administrative instruments are various forms of direct regulation that make some kinds of behaviour mandatory and prohibit others. Under Norwegian legislation, emission ceilings may be imposed to restrict the quantities of pollutants a company releases to air, water or the ground. The Pollution Control Act and the Planning and Building Act govern matters of central importance for the use of natural resources and the environment. Good land-use planning under the Planning and Building Act provides a basis for a long-term pattern of development that can reduce transport needs, reduce pollution, help to safeguard biological diversity and prevent the conversion of cultivated land suitable for food production for other purposes. Together with the Cultural Heritage Act, the Planning and Building Act also plays an important role as regards the use and protection of the cultural heritage. The local government administration plays a central role in implementing administrative instruments, for example to deal with eutrophication, oil pollution, and waste and waste recovery.

Public procurement

The central government administration is a consumer, a producer, and an owner and manager of property, and has an impact on the environment through activities such as procurement, energy use, transport and waste generation. The Government's goal is for all government agencies to operate in a more environmentally-friendly way. Experience from the pilot project "Green Government", which ran from 1998 to 2001, shows that there is considerable potential for achieving both environmental and economic benefits through greater eco-efficiency.

The Government will continue "Green Government" as a full-scale project for all government agencies. They are to integrate environmental considerations into their activities, and are to introduce environmental management systems as part of their overall management system by the end of 2005.

A new Public Procurement Act entered into force on 1 July 2001. It applies to procurement at state, municipal and county level. Agencies are required to take into account the life-cycle costs and environmental impacts of any goods or services they are planning to purchase. Each agency is directly responsible for its own purchases and must ensure that environmental considerations are taken into account on all occasions. State-sector agencies must develop procurement routines and acquire the expertise needed to take environmental aspects of procurement into account. Municipalities and county authorities may voluntarily introduce environmental management systems in the same way as central government agencies. The Government has encouraged them to do this, and will offer help and advice so that "Green Government" can be expanded to become "Green Public Sector".

Environmental impact assessment

Environmental impact assessment is a useful tool for acquiring information on the links between different policy areas and the impacts of policy measures on different groups of people. Such assessments are also very important in drawing up a coherent policy for sustainable development. A good example is the assessment of the impacts on the environment, fisheries and society of year-round petroleum activities in the Lofoten Islands – Barents Sea region. Environmental impact assessment is also an important tool for efforts to put the precautionary principle into practice and for obtaining the environmental information needed to ensure that the general public can take part in and influence decision-making processes in accordance with the Environmental Information Act, which was adopted by the Storting in spring 2003.

Environmental impact assessments are already being used in many fields. The Planning and Building Act includes provisions requiring environmental impact assessment of all major development projects. The Instructions for Official Studies and Reports require all public authorities to evaluate the environmental impact of proposed developments. Guidelines on how to carry out environmental impact assessments have also been published.

The Government will propose amendments to the Planning and Building Act in accordance with the EU Directive on the assessment of the effects of certain plans and programmes on the environment. These amendments will also harmonise the Act with the provisions of the Protocol on Strategic Environmental Assessment, which was signed in Kiev in May 2003.

Information

If individual people are to take environmental considerations into account, they must have access to environmental information. The authorities have a duty to provide a framework that enables individual producers and consumers to act in an environmentally-friendly way. Norway's new Environmental Information Act requires commercial actors to provide information on their products, which means that the main responsibility here does not lie with the authorities but with each actor involved. Information on the environmental attributes of goods and services can be provided directly by various forms of labelling on products, the authorities may require producers to give information about their products in various ways, or the government may provide relevant information itself.

1.5 A policy for sustainable development

In 1989, the Norwegian government published the white paper *Environment and Development* (Report No. 46 (1988-1989) to the Storting), describing Norway's programme for following up the WCED report *Our Common Future*. This policy was further developed in the white paper on an environmental policy for sustainable development (Report No. 58 (1996-1997) to the Storting). The central recommendations of this white paper have since been followed up in the white papers on the government's environmental policy and the state of the environment in Norway. These focus on the integration of environmental considerations into all sectors of society and the use of indicators or key figures and a result monitoring system. Norway has also given priority to Local Agenda 21 efforts. Thus, efforts to achieve sustainable development are progressing continuously at various administrative levels, and involve many different actors in Norwegian society. Coordination of efforts in all sectors is a challenging task, and essential if the work done by the authorities, the business sector and the voluntary sector is to be effective.

In the Sem Declaration, the present Government indicated that it would be focusing to a greater extent on environment and development issues. This is now being followed up with the publication of white papers on important issues such as climate change, the oceans, the urban environment and the cultural heritage, an action plan for combating poverty in the South, and a substantial increase in the development cooperation budget. The Government's ambitions in these important fields were the starting point for Norway's efforts at the Johannesburg summit. The national strategy for sustainable development published in summer 2002 was an important part of the preparations for Johannesburg, and describes the main challenges involved in bringing about sustainable development in Norway. In this action plan, the Government follows up the strategy, focusing on the policy areas that are most central with respect to sustainable development and on concrete action that is to be taken. The next sections describe the Government's policy in these priority areas and suggest ways in which the voluntary sector, the business sector, local authorities and individual people can participate.

1.5.1 International cooperation to promote sustainable development and combat poverty

The Government's main objectives

The Government will play an active part in strengthening international cooperation to achieve international environment and development goals. The Government will pursue a poverty-oriented development policy. Environmental issues will also be an important element of development cooperation, based on the strategic focus in developing countries' own action plans and on their priorities.

International and regional cooperation on environment and sustainable development

The Government will:

- Play a part in efforts to halt the degradation of global common goods.
- Play a part in efforts to continue the development of international rules for environmental and natural resource management, and strengthen their enforcement.
- Seek to ensure that there is a strong environmental pillar in a future governance structure for sustainable development, and to strengthen the leading role of the UN in international cooperation. The Government will make use of Norway's chairmanship of the UN Commission on Sustainable Development (CSD) to revitalise the Commission in its role as the world's leading policy-making body for sustainable development and thus ensure that words are translated into action.
- As part of international efforts to follow up the Johannesburg summit, play an active role in the Johannesburg Renewable Energy Coalition. The coalition's goal is to substantially increase the global share of renewable energy sources. The main focus will be on using tools that will ensure both greater energy efficiency and greater use of renewable forms of energy. Important elements include phasing out environmentally harmful subsidies, pricing energy to include environmental and health costs, training and the development of technology.
- Follow up the Johannesburg decision to encourage and promote the development of a 10-year framework of programmes in support of sustainable production and consumption. In cooperation with the EU and interested developing countries, the business sector and the voluntary sector, Norway will seek to ensure that coherent plans are presented for analyses of the current situation and trends, the development of indicators and benchmarks, greater eco-efficiency in business and industry, acceptance of life-cycle based eco-labelling and other consumption-oriented measures, and for the development of expertise in developing countries.
- Seek to promote cultural diversity as a basis for sustainable development at national and international level, cf the recent white paper on cultural policy.
- Promote environmental concerns in international trade and ensure that WTO rules and multilateral environmental agreements continue to be given equal weight.
- Play a part in the efforts to ensure that international finance institutions such as the World Bank make further improvements to their loan programmes in terms of incorporating environmental and sustainable development concerns, particularly through the use of strategic impact assessments.
- Contribute to efforts to strengthen the role of the UN Environment Programme (UNEP): play an active role in the Global Environment Facility (GEF), including efforts to promote closer cooperation between the GEF and the private sector.
- Promote concerns related to environment and sustainable development in cooperation with the EU and the OECD, and in the Baltic Sea cooperation and the Barents Sea

cooperation, and continue work in the Arctic Council's Sustainable Development Working Group.

- Contribute to implementation of the Nordic strategy for sustainable development and seek to strengthen its targets and intensify efforts for the period 2005-2008 to achieve further progress.
- Seek to strengthen the international agreements on pollution control and ensure that they are implemented. Norway will play a leading role in ensuring that the industrialised countries support efforts by developing countries to implement the global Convention on Persistent Organic Pollutants (POPs Convention).
- Make sustainable development a central priority in Norway's contributions to future EU member states in Eastern Europe.
- Through bilateral and regional cooperation, support Russia's efforts to deal with its environmental problems and assist the country to reach a stage where it is capable of dealing with these problems itself.
- Take part in efforts to promote corporate social responsibility.

The Government's action plan for combating poverty in the South

The action plan describes the Government's strategy for Norway's efforts to achieve the Millennium Development Goals. It also provides a framework for achieving other international environmental and development goals Norway has adopted. The action plan presents specific policy measures in central areas.

A better international framework for development

The Government will:

- Work to ensure that developing countries gain better access to markets in industrialised countries, and use unilateral Norwegian measures to give developing countries wider access to Norwegian markets. Norway has already granted duty-free and quota-free market access for all products from the 49 least developed countries (LDCs) and will give priority to goods from developing countries when making further reductions in tariffs on agricultural goods.
- Work towards improvements in debt reduction schemes, for example by seeking to ensure that the Heavily Indebted Poor Countries (HIPC) Initiative is fully financed and is expanded to include countries that have been affected by war and violent conflict.
- Work to ensure that extra debt reduction by bilateral donors benefits the developing countries and not other creditors.
- Work towards a better international framework for investment in poor countries.
- Work to give the developing countries access to new knowledge and technology and to enable them to put them to use through international educational and research cooperation.
- Contribute to the fight against poverty through international environmental cooperation.

Efforts to improve national framework conditions in developing countries

The Government will:

- Increasingly organise Norwegian development assistance so that it helps developing countries to improve their own capacity and expertise and to build up their institutional and legislative framework.
- Organise Norwegian development assistance so that it helps recipient countries to improve their budgeting and accounting systems, reduce losses resulting from inefficiency and corruption and increase the resources allocated to poverty reduction in the budgets.

- Help to maintain a focus on health and education in developing countries' poverty reduction strategies.
- Help to reinforce the struggle against HIV/AIDS, which has a severe negative impact on development processes in many countries, and a particularly serious impact on the poor.

Norway and international development assistance

The Government will:

- Seek to influence other OECD countries to increase aid volumes so that more of them reach the recommended target of allocating 0.7 per cent of GNI to development assistance.
- Increase the volume of Norwegian development assistance to 1 per cent of GNI by 2005.
- Target Norwegian development assistance towards the poorest countries.
- Follow the principle of greater developing country ownership of plans and strategies, particularly of their own poverty reduction strategies. Norwegian assistance that is not in line with the Millennium Development Goals or poverty reduction strategies will be phased out.
- Seek to ensure that development assistance is made more effective by donor coordination in accordance with the recipients' priorities and plans.
- Actively follow up the untying of aid, among other things to ensure that business and industry in developing countries can compete successfully for contracts in the aid market as well.
- Follow up the recommendations of the Johannesburg summit by strengthening international cooperation on environment and sustainable development. An additional NOK 375 million is being allocated over a three-year period to strategic efforts in four of the WEHAB areas (water, energy, agriculture and biodiversity).
- Plan development projects so that they do not conflict with the rights of indigenous peoples. Support for indigenous peoples will also be important in following up the Johannesburg summit, especially as regards the conservation of biological diversity in areas inhabited by indigenous peoples.
- Support the important role played by international institutions such as UNDP, the World Bank, WHO, UNICEF and UNAIDS in achieving the Millennium Development Goals.
- Seek to improve understanding of the links between poverty, economic development and the environment and strengthen the capacity of developing countries to integrate environmental concerns into national poverty reduction strategies, for example through the partnership with UNEP on poverty and the environment.
- Take part in the development and implementation of UNEP's Intergovernmental Strategic Plan for Technology Support and Capacity Building to Developing Countries.

The private and voluntary sectors

The Government will:

- Make more targeted use of development assistance to strengthen the private sector in developing countries and to increase long-term commercial investments that can provide income and employment in these countries. Private sector actors in Norway and other industrialised countries are important partners in these efforts.
- Strengthen the role of NGOs and the media as watchdogs for democracy and human rights in Norway's partner countries.
- Stimulate and encourage companies to focus on corporate social responsibility and thus incorporate ethics, human rights and environmental concerns into all their activities.

- Seek to establish international partnerships between states and large enterprises to deal with important environment and development tasks. An example of this kind of partnership is the Global Gas Flaring Reduction Initiative, the idea for which was first launched by Norway. Statoil and Hydro are now both actively involved in this initiative together with a number of other companies.

Consistency and coherence in Norway's policy for combating poverty

The Government has decided to review all relevant areas of Norwegian policy to ensure that it makes the best possible contribution to fighting poverty in developing countries. This involves considering elements of, for example, agricultural, industrial, transport, educational and research policy that may have a negative impact on efforts to fight poverty, and evaluating how weaknesses can be corrected. Efforts to increase imports of agricultural products from developing countries and to correct the imbalance in the use of global resources for health research (at present, only 10 per cent of the total is being used to find treatments for diseases that represent 90 per cent of the global burden of disease) are both important aspects of this work.

International peace and security

The Government will:

- Take part in conflict prevention and peace creation, peace keeping and peace building efforts within and between states. Lasting and stable peace requires confidence-building between parties who are or have been in conflict with each other, and reconciliation measures in civil society. It also requires adequate security for the population, equitable distribution of material and social goods and burdens, including sustainable utilisation of natural resources, and opportunities to take part in political processes. Norway's efforts are based on recognition of the interdependence of peace and a sustainable, poverty-oriented development.
- In bilateral fora and in regional and multilateral organisations, stress the importance of implementing the Millennium Development Goals and binding international cooperation as a strategy for achieving peace and security and for preventing terrorism.
- Support efforts to have the environmental impacts of violent conflict and the environmental problems facing countries that are emerging from violent conflicts reviewed more thoroughly.
- Continue work on economic agendas in conflict situations, for example related to illegal exploitation and illicit trade in natural resources.
- Support efforts to prevent and resolve conflicts related to competition for natural resources that are essential to survival (water and agricultural land).

1.5.2 Climate change, the ozone layer and long-range air pollution

Climate

The Government's main objectives

The Government will take responsibility at both national and international level for efforts to counteract global climate change.

The Government will:

- Put forward new national measures to achieve "demonstrable progress" by 2005, in accordance with the Kyoto Protocol.

- Contribute to the objective of stabilising greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous anthropogenic interference with the climate system.
- Introduce a domestic emissions trading system from 2005 limited to CO₂ emissions that are not currently subject to the CO₂ tax. Continue to levy the CO₂ tax scheme on all emission sources to which it currently applies. Introduce a broad-based domestic emissions trading system from 2008 as part of Norway's efforts to meet its Kyoto commitment cost-effectively.
- Improve public transport, including the railways, particularly in the largest towns, cf. the Sem Declaration and the white paper *Better public transport* (Report No. 26 (2001-2002) to the Storting). In the 2003 National Budget, priority was given to measures to reduce congestion problems and make public transport more user-friendly in the largest towns. These focused particularly on the metro system in Oslo and reducing congestion for buses. Another priority area for the Government is to improve the quality of public transport through better coordination and organisation. Trials of alternative administration systems for public transport are therefore to be started in Bergen, Trondheim, the Kristiansand region and the Stavanger region.
- Include public transport in the VAT system from 1 March 2004. This will entitle transport companies to deduct 24 per cent input VAT, and increase their net revenue by about NOK 500 million annually and NOK 330 million in 2004. The business sector is no longer to be subject to the electricity tax, and this will also help to improve the economy of public transport companies, especially rail-based transport systems.
- Will introduce incentives for the larger urban areas to take steps to improve public transport and curb the growth in passenger car traffic. The Government proposes an allocation of NOK 100 million to these schemes in 2004.
- Will ensure that environmental attributes such as fuel consumption and CO₂ emissions are given considerable weight in decisions on procurement of transport services and vehicles by the central government administration.
- Facilitate greater use of cycling and walking as alternative modes of transport.
- Expand the current requirements to provide information on fuel consumption and CO₂ emissions for passenger cars to apply to other types of vehicles as well.
- Work towards the introduction of internationally harmonised policy instruments to reduce emissions from international air and sea traffic. These sectors are not currently subject to the Norwegian CO₂ tax or to the quantitative commitments set out in the Kyoto Protocol.
- Work towards a more ambitious global climate agreement containing stricter and more comprehensive emission commitments, to apply after the first commitment period under the Kyoto Protocol.

See section 1.5.4 for the Government's policy as regards renewable energy sources.

The ozone layer

The Government's main objectives

To prevent depletion of the ozone layer, the Government will phase out all use of ozone-depleting substances.

The Government will:

- Comply with Norway's commitments under the Montreal Protocol and continue its efforts to ensure that phasing out ozone-depleting substances according to a faster timetable does not result in higher consumption of hydrofluorocarbons (HFCs) and other substances that enhance the greenhouse effect.

- Achieve the targets for phasing out ozone-depleting substances both under the Montreal Protocol and under the 2002 EU Regulation on these substances. Norway adopted new regulations in December 2002 that consolidate the rules for ozone-depleting substances and implement the provisions of the EU Regulation.
- Make active efforts to further develop framework conditions that will make it easier for developing countries and Eastern European countries to meet their existing commitments and take on new commitments under the Montreal Protocol.

Long-range air pollution

The Government's main objectives

To limit long-range air pollution, the Government's main objective is to reduce emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia to levels where environmental damage and injury to health are avoided.

The Government will:

- Meet its commitments under the Gothenburg Protocol in a cost-effective and administratively effective way.
- Continue Norway's active participation in efforts to reduce long-range air pollution in Europe.
- Continue to levy a sulphur tax on mineral oils, grade fuel taxes according to sulphur content, limit the permitted sulphur content of mineral oils and regulate sulphur emissions in discharge permits issued pursuant to the Pollution Control Act.
- Use the agreement between the authorities and the Federation of Norwegian Process Industries on further reduction of SO₂ emissions from the process industries as a means of meeting Norway's SO₂ reduction commitment under the Gothenburg Protocol.
- Use effective instruments to reduce NO_x emissions. Emission limits are imposed in discharge permits issued pursuant to the Pollution Control Act. There is a grading system for tonnage dues for ships according to their sulphur and NO_x emissions. The Motor Vehicle Regulations include provisions governing NO_x emissions from motor vehicles. These standards are being made stricter, in line with changes in EU legislation in this area. Low-NO_x burners are being used when new gas turbines are installed on installations on the continental shelf. The Norwegian Public Roads Administration has been promoting investments in NO_x reduction measures and testing of new technology as ways of reducing emissions from ferries that are part of the national road system.
- Meet its VOC commitments under the Gothenburg Protocol. VOC emissions from loading and storage of crude oil offshore and from oil terminals onshore are regulated in discharge permits issued pursuant to the Pollution Control Act. VOC emissions from motor vehicles are governed by the Motor Vehicle Regulations. In 1999, the Ministry of the Environment laid down regulations relating to the reduction of emissions of petrol vapour from the storage and distribution of petrol, and regulations relating to limitation of emissions of volatile organic compounds (VOCs) caused by the use of organic solvents.

1.5.3 Biological diversity and the cultural heritage

Biological diversity

The Government's main objectives

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.

The Government will:

- Monitor and survey biological diversity in order to establish a knowledge-based management system, as described in the white paper on biological diversity (Report No. 42 (2000-2001) to the Storting).
- Stop the loss of biological diversity by 2010.
- Implement the protection plan for coniferous forest. The most recent decision on the protection of new areas was taken in December 2002. When the plan is fully implemented, 1 per cent of all productive Norwegian coniferous forest will be protected. In 2003, efforts to establish and expand national parks are being intensified. The Government is well on the way to completing the national park plan by 2010. When the national park plan, the coniferous forest plan and the county protection plans have been implemented, about 13-14 per cent of the area of mainland Norway will be protected under the Nature Conservation Act.
- Establish a network of marine protected areas in order to safeguard a representative selection of marine habitats and of distinctive, threatened and vulnerable habitats and elements of the cultural heritage in the different biogeographical regions in Norway's marine and coastal waters.
- Take the initiative for the development of a Nordic cultural landscape strategy to safeguard biological diversity and the natural, historical and cultural value of the cultural landscape.
- Establish a system of national salmon rivers and fjords where special measures will be taken to protect wild salmon stocks.
- Safeguard viable populations of the large predators (brown bear, wolverine, wolf and lynx). The Government will submit a white paper on policy relating to the large predators in 2003, including proposals to provide a sound basis for populations of these species with a minimum of conflict between conservation and other interests.
- Promote sustainable management of the world's forests, and take part in efforts to stop deforestation, which is a particularly serious problem in tropical rain forests.
- Follow up the decision made at the Johannesburg summit that an international regime is to be negotiated within the framework of the Convention on Biological Diversity to promote and safeguard the fair and equitable sharing of benefits arising out of the utilisation of genetic resources.
- Continue to pursue a restrictive policy for the handling of genetically modified organisms, in accordance with the precautionary principle.
- Support efforts to implement the Cartagena Protocol on Biosafety.
- Seek to ensure that guidelines concerning control of the introduction of alien species and mitigation of their effects adopted under the Convention on Biological Diversity are implemented.
- Take part in efforts to adopt international rules on the control of ships' ballast water under the International Maritime Organisation (IMO) in 2004, and ensure that Norway adopts national rules in 2004.
- Take steps to ensure that Norway takes part in the Global Biodiversity Information Facility, whose mission is to make the world's primary data on biodiversity freely and universally available via the Internet. The aim is to strengthen global knowledge of biological diversity.
- Contribute to implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture.
- Support outdoor recreation by providing financial support for voluntary outdoor recreation organisations and for municipal efforts to safeguard and facilitate the use of outdoor recreation areas and to facilitate the use of national parks and other protected areas for

recreational purposes. Statskog SF will in future give higher priority to facilitating recreational use by the general public of the large areas of land it owns. This will be done in close cooperation with outdoor recreation organisations and other user groups.

The cultural heritage

The Government's main objectives

Archaeological and architectural monuments and sites and cultural environments are to be managed in such a way that annual losses, which at present are about one per cent of the total, are reduced, and so that we make use of the opportunities they offer. This applies to developing a sense of identity, aesthetic and emotional experience, their function as a repository of knowledge and opportunities for wealth creation. The cultural heritage serves as our common memory and is of great material and non-material value for current and future generations.

The Government will:

- Enhance the protection of the cultural heritage and improve access to monuments and sites and opportunities for people to experience them through the annual allocations to the Directorate for Cultural Heritage and through the Norwegian Cultural Heritage Fund, which was established in 2002.
- Submit a white paper on cultural heritage policy including proposals for measures to counteract the threats to the cultural heritage.
- Strengthen the position of the museums and the work they do in protecting and providing information on the cultural heritage, cf the recent white paper on cultural policy.

1.5.4 Natural resources

The Government's main objectives

The Government's energy policy is intended to promote wealth creation, and is based on the objective of sustainable development. An active policy is needed that limits energy use more than would be the case if developments were allowed to continue unchecked, for example through measures to ensure greater energy efficiency. The extraction of petroleum resources is a very important sector of the Norwegian economy and is to be managed in a way that takes account of its effect on the national wealth and is environmentally sound. Norwegian fisheries management is to ensure sustainable harvesting based on the best possible scientific advice. The Government's agricultural, forestry and reindeer husbandry policy is intended to promote long-term resource management that will maintain settlement patterns, wealth creation and employment and contribute to the production of environmental goods (for example maintenance of the cultural landscape, the cultural heritage and biological diversity).

Energy production and use

The Government will

- Supplement the protection plan for water resources and adopt a reorganised version of the master plan for water resources.
- Continue funding for the action plan for bioenergy through the Agricultural Agreement.
- Provide additional funding for the Energy Fund and Enova's activities so that the goals for a shift towards more environmentally friendly energy production and use can be achieved.
- To increase annual use of central heating based on new renewable energy sources, heat pumps and waste heat by at least 4 TWh by the year 2010.
- Encourage the construction of wind generators with a production capacity of at least 3 TWh/year by the year 2010.

- Increase bioenergy production. An introduction programme for biofuels will be considered.
- Reduce the use of mineral oils for heating by 25 per cent in the period 2008-2012 compared with the average for 1996-2000.
- Take the initiative for a mandatory green certificate scheme for energy generation, preferably in a joint Norwegian-Swedish market
- Utilise the existing hydropower infrastructure better, and increase the number of mini hydropower plants. The Government has proposed increasing the size at which licensing becomes mandatory for power plants and raising the lower limit for estimating economic rent for tax purposes for power companies. These measures are expected to increase interest in building mini power plants.
- Facilitate increased domestic use of natural gas. Natural gas is the fossil fuel that has least impact on the climate, and its use can help to reduce emissions of polluting gases.
- Provide framework conditions that will make it possible to build gas-fired power plants with CO₂ reduction technology. Provide government grants for technology and product development, provide investment grants for gas-fired power plants with CO₂ reduction technology provided certain conditions are met, establish a state-owned innovation company and review state participation in the development and operation of infrastructure for natural gas.
- Evaluate whether to contribute to electricity transmission from the mainland to offshore installations in order to bring about further reductions in greenhouse gas emissions from the continental shelf.
- Take steps to ensure that the goal of zero discharges to the sea from the petroleum sector is achieved.
- Establish framework conditions that make it possible to find a balance between the interests of the fisheries, aquaculture and petroleum sectors within the framework of sustainable development. To this end, the Government has initiated a strategic environmental impact assessment of the consequences for the environment, fisheries and society of year-round petroleum activities in the area from the Lofoten Islands and northwards to the Barents Sea. The impact statement was circulated for comment on 1 July 2003 and is to be discussed by the Government in November-December as a basis for discussion of conditions and requirements for permitting year-round petroleum activities in this area. Together with similar assessments for shipping, the fisheries and external pressures the impact assessment will be part of the basis for the management plan for the Norwegian part of the Barents Sea.
- Establish mandatory sea lanes for high-risk transport pursuant to the Harbour Act. The Government will also consider whether to establish mandatory sea lanes outside territorial waters, in accordance with rules adopted by the International Maritime Organisation (IMO).
- Give priority to environmental research, partly as a means of meeting challenges in areas where petroleum, fisheries and environmental interests coincide.
- Work towards zero-emission solutions in the transport sector, and focus on the use of hydrogen as an energy carrier.
- Review the possibilities of using hydrogen as an energy carrier for both stationary and transport purposes. In June 2003, the Government appointed a committee for this purpose. Its mandate includes drawing up proposals for a national programme for the use of hydrogen as an energy carrier.

Policies and policy instruments relating to conditionally renewable natural resources

Fisheries and aquaculture

The Government will:

- Intensify its efforts to reduce the overcapacity of the fishing fleet and thus improve the profitability of the fisheries industry and reduce pressure on resources. A structural measure (unit quotas) has been introduced for almost all vessel classes in the ocean-going fishing fleet. In 2004, a structural scheme will also be introduced for coastal fishing vessels of length 15-28 metres, to reduce overcapacity in this category. These schemes involve permanently removing vessels from the fishing fleet. A different type of scheme, in which vessels are only temporarily removed from the fishing fleet, will be tested in Finnmark and possibly other counties in 2004. This is intended as a means of increasing the efficiency of fishing operations. On 1 July 2003, a structural fund for scrapping fishing vessels less than 15 metres in length was established. This is partly funded by the industry.
- Review the question of whether to introduce taxation of the resource rent from the fisheries.
- Ensure that actual catches do not exceed the quotas that are allocated. Controls of catches have been intensified, the legislation has been simplified and the police and prosecution authorities are giving higher priority to breaches of fisheries legislation.
- Intensify efforts to reduce environmental problems caused by the fish farming industry. Parasitic salmon lice and escaped farmed salmon have a negative impact on wild salmon stocks. The fish farming industry has drawn up plans for reducing escapes of farmed salmon from net pens. In the white paper *Protecting the Riches of the Seas* (Report No. 12 (2001-2002) to the Storting), the Government stated that it would intensify efforts to reduce the environmental problems associated with fish farming, for example by ensuring that environmental considerations are a fundamental basis for its further development and by intensifying efforts to reduce problems associated with escaped fish and salmon lice.
- Play an active role in ensuring that as production of other farmed species than salmon is developed, environmentally sound standards are established both nationally and internationally.

Forestry

The Government will:

- Target the use of policy instruments in primary forestry by focusing on bioenergy and intensifying environmental efforts in forestry through the programme for registration of biodiversity in forests.
- Take steps to have a national forest programme drawn up as part of the process of reorganising forestry policy and as a means of following up international commitments.

See section 1.5.3 for more on the protection of coniferous forests.

Agriculture and reindeer husbandry

The Government will:

- Work to ensure that most of the cultivated area suitable for food production is protected against development for other purposes.
- Support the establishment of the Global Conservation Trust, which provides long-term financing for centres that preserve plant genetic material of importance for food production.
- Ensure that agricultural grant schemes are decoupled from production levels to a greater extent, and that they support the goal of maintaining settlement patterns and employment in rural districts and contribute towards sound management of the cultural landscape and biological diversity.

- Require an environmental plan to be drawn up for each holding as a condition for receiving grants.
- To achieve better results and make environmental policy instruments more effective in the agricultural sector, transfer administrative responsibility for some legislative and economic instruments to regional and local level. Regional environmental programmes are to be used to ensure that policy instruments are targeted more effectively towards problems that exist in each county. The objectives of transferring authority to local level are to increase local engagement in these issues, ensure that local knowledge is put to use and give the municipalities a more active role in agricultural policy.
- Achieve the target that 10 per cent of Norway's agricultural area is to be converted to ecological farming by 2010. Broad-based efforts throughout the value chain have been started to this end.
- Ensure that the water quality in fresh water bodies and marine areas is high enough to maintain species and ecosystems and to take account of the requirements of human health and welfare.
- Work to reduce eutrophication. Coastal waters from the border with Sweden to Lindesnes (the southernmost point of Norway) are sensitive to eutrophication, which is mainly caused by discharges of phosphorus and nitrogen. The agricultural sector is the source of a substantial proportion of these substances, although discharges have been reduced in the past 20 years. The Government will therefore continue efforts to reduce discharges of nutrients and other pollutants from the agricultural sector.
- Lay down a maximum permitted number of animals for each reindeer husbandry district so that the number of reindeer is adjusted to the grazing resources.

1.5.5 Hazardous substances

The Government's main objectives

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

The Government will:

- Intensify efforts to reduce emissions of substances that are on the priority list. Both process emissions and the content of hazardous substances in products are subject to restrictions and regulations. Efforts to reduce damage caused by PCBs and other substances have been intensified through the collection scheme (government-supported) for insulating windows containing PCBs and clean-up operations for polluted fjords and harbours. Taxes have been introduced on two organochlorine solvents, trichloroethene and tetrachloroethene.
- Expand the list of chemicals whose use is to be substantially reduced by 2010. In addition to named substances and groups of substances, the list is to include other chemicals that meet one or more of a set of criteria used to identify the substances that pose the greatest threat to health and the environment. This was proposed in the most recent white paper on the Government's environmental policy and the state of the environment in Norway (Report No. 25 (2002-2003) to the Storting). The reduction target can be made more flexible by linking it to a set of criteria: this means that if new information shows that a substance meets one or more of the criteria, it can be included on the list if phasing it out by 2010 is expected to provide social benefits.

- Reduce emissions of brominated flame retardants. An action plan to achieve this has recently been presented. The Government will propose prohibitions on the use of the most dangerous substances, and ensure that products containing brominated flame retardants are treated as hazardous waste.
- Internationally, the Government has advocated binding targets and regulation of the most dangerous organic pollutants (POPs) and heavy metals such as mercury. The decision from Johannesburg to ensure that chemicals are used and produced in ways that minimise significant adverse effects on health and the environment must be followed up.
- Ensure that clean-up operations at the 100 most seriously contaminated sites are completed by 2005. Substantial resources have been allocated for this purpose by the environmental authorities, and a strategy was presented in the white paper *Protecting the Riches of the Seas* (Report No. 12 (2001-2002) to the Storting).
- From 2004, implement a new action plan to reduce the risks associated with the use of plant protection products.
- Take steps to prevent occupational use of chemicals from causing injury to employees' health. Efforts will focus on protective measures to reduce exposure to harmful chemicals at the individual workplace.

1.5.6 Sustainable economic development

The Government's main objectives

The objective of Norway's economic policy is to promote the efficient use of the country's overall resources within a sustainable framework. The Government will promote sustainable production and consumption patterns through international cooperation and through the use of economic and other types of instruments. Non-renewable resources are to be managed in a way that takes account of impacts on the national wealth. Human resources are our most important asset, and one of the Government's objectives is to encourage knowledge development and high labour market participation.

The Government will:

- Design budgetary policy to build up sufficient reserves to meet future expenditure. The Government's budgetary policy follows the guidelines for phasing in petroleum revenues on which broad consensus was reached during the Storting debate on a white paper on economic policy (Report No. 29 (2000-2001) to the Storting).
- Carry out a broad-based reform of the national insurance scheme. This has three main objectives. The pension system must be financially sustainable, so that it provides a guarantee for the future of the national insurance scheme. The pension system must also provide incentives to stay in work. Finally, the pension system must continue to guarantee a minimum pension for everyone.
- Take steps to improve the efficiency of the economy. The Government will modernise the public sector with a view to making it more productive and user-friendly and improving its quality, and will develop a more efficient taxation system.
- Review the different forms of subsidies to industries to ensure that they in fact provide social benefits, eliminate or reorganise subsidies that have negative environmental impacts, develop the tax system to ensure that resource use, environmental impacts and other external costs are priced as correctly as possible, ensure effective resource use through active competition and design good regulatory systems.
- Introduce a new degree structure in the higher education sector to improve the quality of education at universities and colleges.
- Modernise the compulsory education system.

- In cooperation with the business sector, gradually increase Norwegian research efforts to at least the average OECD level. To encourage research and development in the business sector, the tax relief scheme for R&D was expanded to apply to all companies in 2003. In the 2003 National Budget, allocations to the Research and Innovation Fund were increased by NOK 3 billion, and by a further NOK 1.8 billion in the Revised National Budget. The fund now totals NOK 31.8 billion.
- Strengthen research on sustainable development. The Research Council of Norway is running a research programme called “Towards Sustainable Development: Strategies, Opportunities and Challenges”.
- Strengthen basic research, among other things through the Research and Innovation Fund.
- Submit plans for an integrated innovation policy in the course of autumn 2003. The plan will be in line with the action plan for sustainable development. The importance of innovation for the environment, health and development is one of the reasons why an integrated innovation policy is needed.
- Review the issue of ethical guidelines for the Government Petroleum Fund. The commission appointed by the Government to propose ethical guidelines submitted its report on 25 June 2003. The Government intends to present the matter to the Storting in the Revised National Budget for 2004. The Environmental Fund was established as part of the Petroleum Fund on 31 January 2001. The Government will evaluate the Environmental Fund in the context of other proposals that may be forwarded for ethical guidelines for the Government Petroleum Fund in the Revised National Budget for 2004.

1.5.7 Sami perspectives on environmental and natural resource management

The Rio Declaration states that, “Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices.” It goes on to say, “States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.” The Sami parliaments in the Nordic countries were behind a joint initiative at the Johannesburg summit to ensure that the concerns of indigenous peoples were heard, and gained support for the following sentence in the Johannesburg Declaration on Sustainable Development, “We reaffirm the vital role of the indigenous peoples in sustainable development.” Special Sami perspectives in efforts to bring about sustainable development are related to the maintenance of traditional Sami occupations and the Sami way of life. Norway has tried to include both the Sami perspective and the environmental protection perspective in a special Sami Local Agenda 21 project. The project has helped to raise the Sámediggi’s (Sami parliament) level of ambition as regards environmental policy, partly through the integration of objectives relating to environment and sustainability into ordinary activities and partly through specific proposals for follow-up, including the development of an Agenda 21 for indigenous peoples.

The Government’s main objectives

The Government’s objective is to ensure that Sami interests and concerns are integrated into its sustainable development policy, and to develop constructive forms of cooperation between the Sámediggi, the central environmental authorities, regional authorities and other actors in environmental efforts. The Government also wishes to ensure that developments in Norway are in accordance with the country’s commitments under international law to protect the material basis for Sami culture, for example through UN International Covenant on Civil and Political Rights and ILO Convention No. 169. These include ensuring the active participation of indigenous peoples in decision-making, which includes decision-making in processes

relating to sustainable development. This has been a central concern during the preparation of a draft act relating to land rights in Finnmark, which has now been submitted to the Storting.

The Government will:

- Wherever appropriate in legislative work, take into account Sami custom, tradition and interests. In the field of environmental protection and in work on protection regimes, the Government will take into account Sami views and custom relating to the environment and the cultural heritage, as described in the white paper on Sami policy (Report No. 33 (2001-2002) to the Storting).
- Provide a framework for development in Sami areas where traditional skills and modern technology together form part of the basis for economic renewal, new businesses and the maintenance of settlement patterns, and also ensure sustainable development. Purposeful efforts to develop commercial activities based on Sami culture and closer cooperation between the business sector, research institutions and the cultural sector must be closely linked to a sustainable development policy.
- Consider whether to transfer more responsibility for making use of the potential for development to regional political bodies and the Sámediggi.
- Ensure that the role of the Sámediggi in determining the framework for Sami policy is reflected in policy formulation and in the administration of Sami interests in environmental, cultural and regional policy.
- Recognise the importance of developing cooperation with the Sámediggi and other Sami actors that can be instrumental in developing Sami environmental management and a Sami environmental policy. It should be possible to make use of, codify and renew traditional Sami culture and knowledge of the environment and climate as part of this process.

1.6 Participation and follow-up of the action plan

Sustainable development requires many different actors to take part and make contributions. The Government intends to follow a policy that will encourage active participation by the business sector, the voluntary sector, the public administration and individual people.

1.6.1 The role of the business sector in sustainable production

The business sector has a central role to play in efforts to bring about sustainable development. Its capacity for innovation that can lead to more sustainable production processes and the willingness of businesses to operate in a socially responsible way will ultimately be crucial for achieving central political objectives. In this connection, interaction between international institutions, authorities and the business sector is important. Norway will seek to promote this, for example through bodies such as the Global Compact, the ILO and the World Bank.

The World Business Council for Sustainable Development (WBCSD) is a particularly important organisation, and many of the major international firms are members (Norwegian members include Statoil, Norsk Hydro, Det norske Veritas (DNV) and Storebrand). The Council's representative in Norway is the Confederation of Norwegian Business and Industry (NHO). Companies that are members of the WBCSD have undertaken to work towards continuous improvements of production processes to make them more sustainable, and to intensify their efforts to bring about social and economic development in areas where they make investments. The Government wishes this action plan to provide a basis for a more active dialogue with the WBCSD, both to gain broader support for such activities and to encourage more Norwegian companies to learn from the companies that are world leaders in

this field. The Government would for example like to see an even stronger focus in the WBCSD on opportunities for investment that can give more effective poverty reduction in the poorest countries.

The Government will also pursue an active policy to promote corporate social responsibility. Norway should take part in relevant negotiation processes in this field. Norway has for example taken an active part in the Extractive Industries Transparency Initiative, which is seeking to increase transparency over payments by companies in the petroleum and other extractive industries and revenues received by host governments. Statoil and Hydro are also playing an active part in this initiative. Norway will continue its support to the Global Compact.

Most companies in the Norwegian business sector are small and medium-sized enterprises. A set of indicators should be developed for this category that can demonstrate improvements related to social responsibility over time.

The Norwegian authorities have a wide range of environmental and business policy instruments that can be applied to the business sector. Environmental policy instruments include administrative instruments such as direct regulation and economic instruments, and the provision of information on products. Industrial policy instruments include incentives provided by bodies such as the Norwegian Industrial and Regional Development Fund, SIVA, the Norwegian Trade Council, the Research Council of Norway and the Government Consultative Office for Inventors.

It is an important task to design policy instruments so that they encourage the business sector to make use of opportunities for growth within the framework of sustainable development in dealing with environmental challenges. Research and innovation are the key to both wealth creation and sustainable development. This is one reason why the Government will be publishing plans for an integrated innovation policy in the course of autumn 2003. Experience shows that clear, predictable framework conditions enable the business sector to make considerable improvements in eco-efficiency. One Norwegian example is the ferro-silicon industry, which now uses silica fume, a byproduct generated at smelting plants, as a valuable high-tech product, for example as an additive in high-performance cement. During the 1980s, the pulp and paper industry was able to transform bark, chips and black liquor from pollutants and a waste problem into sources of energy. Norwegian industry makes considerable savings through energy efficiency: in the period 1995-2000, these totalled 1100 GWh a year. Companies can also improve their market position by introducing environmentally sound solutions. Norwegian examples include ABB's seawater scrubbing system for flue-gas desulphurisation, Kværner's waste water treatment plant for the pulp and paper industry and ScanWafer, which now has 20 per cent of the world market for materials for the production of solar cells.

The administrative and economic policy instruments used by the Government are essential, but are not sufficient to ensure that the business sector develops along an environmentally sound path. Substantial environmental benefits would result if all businesses reached the same environmental standards as the leading companies in their sectors. Other policy instruments are used as incentives for as many companies as possible to improve their own environmental performance and use this as a market asset. Various public- and private-sector instruments and schemes supplement the Government's policy instruments. These include environmental management systems (ISO 14001, EMAS, the Norwegian Eco-Lighthouse programme), environmental reporting as required by the Accounting Act, eco-labelling schemes (for example the Nordic Swan) and environmental certification. The Global Reporting Initiative (GRI) provides a framework for voluntary reporting on economic, environmental and social

performance. It is an important mechanism for achieving the goal of corporate social responsibility, and the guidelines are being tested by a growing number of the world's largest firms.

The business sector should make wider use of environmental management systems and eco-labelling schemes, intensify the development of environmentally sound technology, focus more on sustainable product design and industrial ecology, and develop market opportunities for exports of environmental technology and environmentally sound solutions.

In recent years, one of the ways the Government has promoted sustainable industrial development has been through the establishment of and annual support for the GRIP Foundation for Sustainable Consumption and Production. The foundation promotes the development and use of methods to combine greater wealth creation with a reduced environmental impact and reductions in the use of resources. GRIP works mainly with environmental problems and companies that are not directly regulated by means of administrative and economic instruments. Its main priorities have included the finance sector, purchasing, retail and wholesale trade, buildings and travel and tourism.

The business sector itself has established various networks and organisations that work with different aspects of environmental policy. One example is the Green Business Network Norway, whose members include companies and consultants concerned with eco-efficiency.

During the preparation of this action plan, both individual companies and organisations such as the Confederation of Norwegian Business and Industry, the Federation of Norwegian Commercial and Service Enterprises, the Norwegian Financial Services Association and the Norwegian Shipowners' Association have provided valuable input, particularly as regards ways of ensuring broad-based participation in efforts to promote sustainable development. The authorities and the business sector agree that this work requires a long-term effort, an international perspective and a closer focus on specific challenges by all parties.

The business sector supported the decision to make the committee of state secretaries a permanent body as a means of ensuring that continued efforts towards sustainable development are recognised as a political responsibility, and agrees that it should be headed by the Ministry of Finance. The business sector also expects to enjoy a continuous dialogue with the committee. Several of the bodies that were consulted supported a proposal to set up working groups with members drawn from both the public and the private sectors to work on specific high-priority issues. This is an interesting proposal, and one that the Government will follow up. It will be natural to invite representatives of the voluntary sector, the trade unions and research institutions to take part as well.

The issues to be dealt with by the working groups will be further considered and discussed when the dialogue with the business sector is continued after the action plan has been finalised.

1.6.2 The role of local government and Local Agenda 21

The municipalities have important responsibilities in many environment-related fields, including land-use planning, waste management, waste water treatment and energy. The municipalities have a number of roles: they provide services, exercise authority, are democratically elected bodies, and are important partners in the process towards sustainable development. The Local Agenda 21 process links a global strategy for sustainable development to local engagement. In this context, the main role of local authorities is not to exercise authority or provide services, but to initiate projects and be a partner in cooperation with the private and voluntary sectors. The Government will enhance the municipalities' opportunities to play this role. The Ministry of the Environment is supporting a national

project organised by the Norwegian Association of Local and Regional Authorities to incorporate environmental protection and sustainable development into training for newly elected officials in the municipalities and counties. Support is also being provided for a development programme for green procurement in the municipal sector.

The Government intends to strengthen local democracy and local freedom of action through a rise in the proportion of municipal income that is not earmarked for specific purposes and by including more of the earmarked allocations to municipalities in their overall block grants and reducing state control through detailed rules. Greater freedom of action will give the municipalities more opportunity to deal with local challenges and to make use of solutions that are adapted to the local situation – and this will apply to sustainable development efforts as well. It will also make it easier for municipalities to enter into various types of local partnerships.

In the Government's view, decisions should be made as close as possible to those who are affected by them, and this is why it is taking steps to strengthen local democracy. In a white paper on local democracy (Report No. 19 (2001-2003) to the Storting), the Government proposed that responsibility for a number of tasks in the environmental and agricultural sectors should be transferred to the municipalities, and the Storting approved the proposal. This will give the municipalities more freedom to find good solutions to local challenges related to sustainability.

The central government allocates funds to the municipalities in the form of block grants. From 2004 onwards, the criteria for allocating these funds are to include the extent of the tasks and problems each municipality has to deal with in the fields of environmental protection and agriculture. Some of the funding is allocated by the county governors, who are expected to consider their allocations in relation to other regional policy instruments, with a view to promoting sustainable development at local and regional level.

Community mobilisation and local responsibility for environmental policy are necessary to ensure better performance in relation to national and international targets and to safeguard environmental qualities that are important for people's health and well-being. The Government will strengthen environmental protection at municipal level by giving the municipalities more responsibility, greater freedom and more tools for carrying out local environmental tasks.

Some changes have already been made. The municipalities have been given more authority to deal with pollution through new regulations relating to local air quality. They have also been given more responsibility for certain aspects of nature management, for example wildlife management. More tasks, responsibilities and authority in the environmental field will gradually be transferred to the municipalities between now and 2005. To make the new municipal responsibilities clear, an overview of authority and responsibilities as regards environmental protection will be published on the Internet.

To ensure that agricultural policy instruments are adapted to local conditions as closely as possible, the Government intends to provide the municipalities with more freedom of action to play an active role in the agricultural sector. This will be done by delegating more authority and responsibility for agricultural policy to the local level. The aim is to ensure that there is a sense of responsibility and an understanding and acceptance of important agricultural policy objectives at local level. As the municipalities are given more authority and responsibility, decisions will be made closer to the people living there and using services, and businesses will also have more opportunity to influence their own development.

Authority in a number of areas in the agricultural sector is being transferred to the municipalities from 1 January 2004. These include all matters pursuant to the Land Act, the Forestry Act (except for decisions relating to the boundaries of protected areas of forest), cases under the Land Act relating to the subdivision of agricultural properties, and the authority to make decisions on the use of investment funds under the Agricultural Development Fund (funding for environmental and forestry measures). In addition, it was agreed in 2003 to move funding for a number of environmental measures out of the Agricultural Agreement to the central government budget, and to delegate these funds to the counties and municipalities so that they can be used more freely to meet regional and local needs. The Ministry of Agriculture, the Norwegian Association of Local and Regional Authorities and the Ministry of Local Government and Regional Development are cooperating in following up the white paper on local democracy in the agricultural sector.

The white paper on an environmental policy for sustainable development (Report No. 58 (1996-1997) to the Storting) included Local Agenda 21 as one of the priority areas of Norway's environmental policy, to follow up both Agenda 21 and the Norwegian local environmental development programme, which ran from 1992 to 1996. A national programme to promote the Local Agenda 21 process in Norway ran from 1997 to 2002. In 1998, the Fredrikstad Declaration was adopted. All Norway's counties, more than two-thirds of its municipalities and a variety of organisations have endorsed the declaration, and have thus undertaken to work actively towards sustainable development through the LA 21 process.

The Norwegian Association of Local and Regional Authorities has been an important partner in the programme to promote the LA 21 process. The Association wishes to play an active part in sustainable development efforts in the municipal sector, and in particular link this to the role of the municipal sector in community development. During work on this action plan, the Association has been identifying measures and initiatives for which the municipal sector is responsible, and measures related to the development of cooperation between the state and municipal sectors. The Government will improve the framework for this work by means of a continued dialogue with the Association, for example during their regular consultations.

The Ministry of the Environment is also supporting a programme run by the Ideas Bank called Frontrunner Communities. Its objective is to spread information about ambitious Local Agenda 21 efforts. The programme is to be concluded with a national conference in 2005.

The LA 21 effort has resulted in growing recognition of the fact that all actors in the municipalities must join together to take responsibility for environmental policy. The cooperative relationships that have been established during the LA 21 process in Norway will provide an important basis as new environmental policy tasks are transferred to the municipalities. It is particularly important for the central government authorities to identify and implement changes that can lead to better policy coordination and coherence at central level. Another important task is to consider how the many local initiatives fit into the wider national context.

The Government considers it important to look at how to make more use of the planning tools set out in the Planning and Building Act to transfer responsibility for sustainable development to local level by facilitating development patterns that reduce the need for transport, protect areas designated as agricultural areas, areas of natural environment and outdoor recreation areas against unnecessary development, and create a pleasant residential environment. Planning solutions for the use of renewable energy sources will be another important topic. The municipalities should also make more use of agreements with the local business sector than they do at present, for example in relation to transport, so as to promote more sustainable local communities.

Several of the bodies that were consulted proposed the establishment of an Agenda 21 fund to support local and regional initiatives for sustainable development. They also indicated a need for a national centre of expertise to enhance knowledge and spread information on sustainable development.

In the Government's view, existing resources and institutions should be used wherever possible. To enhance performance, improve the spread of information and optimise the use of resources, the Government will encourage closer cooperation between several of the bodies that are currently allocated support through the Ministry of the Environment's budget to provide information and expertise on environmentally sound production and consumption.

More use should be made of Local Agenda 21 projects and people-to-people cooperation between North and South to increase understanding of the problems facing developing countries and the importance of introducing sustainable production and consumption patterns in Norway. The Government will facilitate small-scale cooperation projects involving Norwegian municipalities and communities in developing countries through better coordination, with the active involvement of the Norwegian Agency for Development Cooperation (NORAD) and the Norwegian Association of Local and Regional Authorities. Relevant organisations including Friendship North/South and the Norwegian Fredskorpset should also be drawn into this cooperation. These efforts will be funded from the development cooperation budget.

1.6.3 The role of the voluntary sector

Broad-based participation in policy development is a central tool for sustainable development. The environmental organisations play an important role in focusing attention on environmental problems, stimulating debate and giving environmental protection a higher profile. In order to play this role, the organisations must have good access to information and opportunities to play a part in decision-making processes. These rights are set out in the Aarhus Convention and in the new Norwegian Environmental Information Act.

Norway has been a pioneer and prime mover in efforts to increase participation by NGOs in international environmental cooperation. Norway has traditionally included representatives of NGOs in its national delegations to major UN conferences.

The National Committee for International Environmental Issues is the Government's permanent body for dialogue with NGOs on global environmental issues. The Committee is headed by the Minister of the Environment and includes representatives from eight other ministries, employer and employee organisations, consumer, women's and Sami organisations, the municipalities, research organisations and environment and development NGOs. After the Rio conference, a large number of NGOs formed a network called the Norwegian Forum for Environment and Development (ForUM) to follow up the implementation of Agenda 21. About 60 NGOs are associated with ForUM, which is mainly financed by the Ministry of Foreign Affairs and the Ministry of the Environment.

Norwegian NGOs also play an important role in development cooperation, both as partners in a dialogue and in the implementation of specific development projects. These activities help to strengthen civil society in developing countries and to ensure input to and support for Norway's development cooperation policy from these organisations. A substantial part of the work in this field is designed to promote sustainable development.

The Church of Norway and a number of church organisations are involved in broad-based, practical efforts to promote sustainable development through development cooperation in developing countries and efforts to raise awareness of environmental issues here in Norway.

One of the issues in focus is how changes in individual people's consumption patterns can contribute to sustainable development.

In regional and bilateral cooperation in the northern areas and in Eastern Europe, the Ministry of the Environment is cooperating with environmental organisations that are involved in these areas. It also provides support for the organisations' environmental projects, especially in northwestern Russia.

Since Norway is a party to the EEA Agreement, a great deal of EU environmental legislation has been incorporated into Norwegian legislation. The Government views it as positive that Norwegian NGOs are following developments in EU legislation and, through umbrella organisations, are taking part in efforts to influence the process. The Ministry of the Environment provides relevant information on EU/EEA matters on its website, and by making information on what is happening easily available at an early stage, encourages active participation by NGOs. It has also provided financial support and expertise for a project on Norway and the EU for Norwegian environmental organisations.

The NGOs play an active part in spreading information and raising awareness of and interest in a number of fields such as outdoor recreation, the cultural heritage, biological diversity and waste management and recovery. National organisations as well as local branches have been deeply involved in the LA 21 effort. The support and cooperation of the NGOs is important for local sustainable development efforts. Responses to the draft action plan varied a good deal among the NGOs that were consulted. Many of them considered the main features of the plan to be positive. However, several commented that it should have been more ambitious and more clearly targeted.

The Government will invite NGOs to participate in the implementation of Norway's national Agenda 21. It considers the role of NGOs and the local business sector in the LA 21 effort to be important. The Government will also promote active participation by NGOs in important global and regional processes towards sustainable development and encourage projects and networking by Norwegian and international NGOs. There are also plans to develop a new, more extensive project on a sustainable Norway and EU.

1.6.4 Environmental information, the role of the individual, and sustainable consumption

Many factors are involved when consumers choose between different services and products that are on the market, and the factors that are most important will vary from one person to another. In many cases, it can be difficult and time-consuming to identify the impact of the manufacture and use of a particular product or service. Green taxes are one way of pricing the environmental costs involved in the production and consumption of a particular good or service, and help to make products and services that have negative effects on the environment more expensive than those with less impact. In most cases, price is an important criterion when consumers choose between different products. Thus, when green taxes are introduced, more consumers will choose products with less impact on the environment. Economic instruments are therefore a suitable means of shifting consumption towards products that have a relatively small environmental impact, even if individual consumers do not choose products on the basis of their environmental impact.

Eco-labelling is a way of giving consumers the opportunity to choose on the basis of environmental considerations. In recent years, a number of eco-labelling schemes have been established in Norway and in other countries. The Nordic Swan has been in use since 1989, when the Nordic Council of Ministers decided to introduce a joint official eco-labelling scheme for all the Nordic countries. In Norway, a foundation called Eco-labelling Norway

fulfils Norway's commitments under this scheme. By agreement with the Ministry of Children and Family Affairs, the foundation also manages Norway's commitments under the EU eco-labelling scheme. The Ministry provides an annual grant towards the foundation's work. Eco-labelling enables consumers who prefer to use goods and services that meet higher environmental standards than those required by the authorities to identify them easily. While green taxes are intended to encourage the use of environmentally sound products and services through prices, eco-labelling identifies products and services that are among those with the least environmental impact in a particular category.

The right to environmental information is specifically laid down in the Norwegian Constitution. To strengthen this right, the Government put forward a draft act on the right to environmental information in autumn 2002. The act was adopted by the Storting, making it possible for Norway to ratify the 1998 Aarhus Convention in May 2003. In several respects, the Environmental Information Act is more far-reaching than necessary to comply with the Convention. It contains provisions on the right of the public to receive information on request from public authorities and from public and private enterprises. The Act also requires administrative agencies at all levels to make information on the state of the environment and environmental conditions within their respective spheres of responsibility generally available. The right of members of the public to receive environmental information from public agencies is strengthened by special provisions relating to access to information and rules of administrative procedure that go further than those set out in the Freedom of Information Act. Anyone who runs a public or private enterprise is required by the Act to possess knowledge of any aspect of their activities that may have an appreciable impact on the environment, and members of the public have a right to receive environmental information directly from the enterprise. The Act also provides new rights relating to environmental information on products. Further, the Act contains provisions on how public participation and influence in decision-making processes of significance for the environment is to be ensured.

The Government wishes to ensure that more environmental information is provided on products and services through cooperation between the authorities, the voluntary sector and the business sector. In particular, the Government will consider how the different actors can, in more binding cooperation with employers' organisations, ensure that additional information is provided on products and services, both for consumers (in the form of simple standardised environmental information) and for professional users (in the form of standardised environmental declarations). Such information is essential to enable consumers to take environmental factors and sustainability into account when purchasing and using products and services.

1.6.5 Following up the action plan

The preparation of this action plan, or national Agenda 21, is an important step in Norway's long-term efforts to bring about sustainable development. Some important elements of the follow-up to the action plan will be as follows:

- The responsibility of the central government administration for further efforts towards sustainable development and ensuring that this is reflected in steering documents.
- Cooperation and dialogue between central authorities, the business sector, the voluntary sector and local government.
- Further development of a set of indicators used to describe important developments, analyses of trends, and organisation of efforts to ensure that information reaches as many people as possible.
- An information strategy designed to involve more people in the sustainable development effort.

One important purpose of a national Agenda 21 is to improve coordination and provide a more effective policy for sustainable development. The action plan is coordinated with and based on already existing plans and strategies, and will thus contribute to better integration of policy in various fields. It is primarily to be followed up through white papers and legislative proposals from the various ministries dealing with specific policy proposals related to sustainable development. This will help to ensure that sustainable development becomes an integral part of the central political processes. The environmental aspects of the action plan will be followed up in the white papers on the Government's environmental policy and the state of the environment in Norway. To ensure close coordination with the main lines of Norway's economic policy, the Government's steps to follow up the action plan will be described in the annual National Budget and in long-term planning documents.

As new information is acquired, it will be necessary to revise the objectives on which the action plan is based. Policy in different fields must be adjusted as new information becomes available, but the action plan will also be reviewed and revised at regular intervals. It seems appropriate to do this every four years.

Efforts to bring about sustainable development have a long-term horizon. The analyses on which these efforts are based must also have a long enough horizon to provide a sound basis for action today. The horizon for specific political targets will depend on various factors, including international commitments and targets set by the international community. The Millennium Development Goals, for example, have quantitative targets for 2015.

This action plan includes specific targets and indicators for central areas. In order to judge whether we are making progress towards these targets, it is essential not only to have indicators of historical developments, but also to have a sound basis for predictions of future developments. One means of following up the action plan will therefore be to present projections based on integrated analyses of economic and environmental developments.

The action plan presents a limited preliminary set of indicators in fields of central importance for sustainable development. In autumn 2003, a committee will be appointed to continue the development of indicators, and a more complete set of indicators will later be established on the basis of the committee's recommendations. Many of the bodies that were consulted on the draft action plan expressed a strong desire to take part in this work.

Annual reports will be prepared on trends in the indicators selected. These will be made public, and can be an important element in follow-up of the action plan since they will illustrate development trends and raise awareness of sustainable development efforts. This is also an important part of the information strategy for sustainable development.

The sustainable development effort must be made an integral part of political, organisational and budgetary tasks, and responsibility for following up the action plan must be clearly defined. Other countries have found different ways of organising this. Some have placed the responsibility with the office of the prime minister, while in others it rests with a single ministry or a group of ministries.

A committee of state secretaries, headed by a representative of the Ministry of Finance, was responsible for drawing up this action plan. The other members of the committee represented the Ministry of Local Government and Regional Development, the Ministry of the Environment, the Ministry of Foreign Affairs and the Office of the Prime Minister. The fact that the committee members were drawn from ministries that deal with central policy areas linked to sustainable development clearly showed that this work is being treated as a political responsibility. The draft action plan suggested that a good way of continuing this process

would be to make the committee permanent. This solution received a great deal of support from the bodies that were consulted.

The Government has decided that the committee of state secretaries is to be permanent, and that it will continue to be headed by a representative of the Ministry of Finance. The committee will be involved in following up the action plan and indicators for sustainable development. The annual report on trends in indicators will be sent to the committee. It will also be involved in coordinating sustainable development policy across ministries and policy areas, and will play a central role in the authorities' dialogue with different actors. The Government will use the committee as a channel for a dialogue on trends and challenges in connection with the annual indicator reports. The committee will welcome proposals for ways of reversing negative trends and continuing and strengthening positive trends.

The committee of state secretaries will consider new measures that were proposed during the consultations on the draft action plan, and will channel proposals to the appropriate ministries. The committee will also support the line ministries in following up the action plan within their spheres of responsibility. Each ministry will be responsible for the direct dialogue with different actors within its fields of responsibility.

An important part of the follow-up will be to develop meeting places for various actors in the sustainable development effort – from central government agencies, local government, the business sector and the voluntary sector. Whether new meeting places are needed will depend on whether there are needs that are not being met at present. Meeting places may include regular conferences, both national and local arrangements, and various fora where important aspects of sustainable development efforts can be discussed. The Government will promote dialogue with local government, the business sector and the voluntary sector to find suitable contact arrangements.

The educational system has an important role to play in improving people's knowledge of sustainable development. The complex issues of environment and development should have an important place in education, and should be part of curricula at all levels. The Norwegian Environmental Education Network was established to provide schools with support in this field. The main activities offered for pupils are investigations in their neighbourhood related to biological diversity, land use, the cultural heritage and air and water pollution, and participation in waste separation and recovery. The activities are put into a wider global context, and provide a valuable supplement to LA 21 efforts.

The Government will encourage municipalities, the business sector and the voluntary sector to join together in partnerships where they can demonstrate their plans for moving towards sustainable development as possible examples for others to follow. One purpose of such partnerships should be to promote cooperation across the usual dividing lines and thus bring about environmental improvements.

To draw the general public into sustainable development efforts, the Government presents an information strategy in this action plan. Norway's strategy for sustainable development, presented in August 2002, mentioned this as an element of the planned action plan. An information strategy is an important means of involving more people in sustainable development efforts, and especially for improving levels of knowledge, providing expertise and thus changing behaviour patterns in all sectors of society.

To achieve sustainable development, all sectors of society must make sustainable choices and decisions and follow sustainable patterns of behaviour. It is therefore important to improve the level of knowledge and raise awareness of sustainable development in society in general and to involve specific target groups in sustainable development efforts. Information must be

considered in conjunction with other instruments such as legislation and economic measures. The Government's information strategy is based on five main principles. The first is two-way communication, which means maintaining a dialogue with target groups. The second is to follow an active information policy, to ensure that end users receive relevant information and that the state takes the initiative in providing it. Thirdly, the information provided on sustainable development should be coherent, and should be readily identifiable regardless of which authority it is received from. Fourthly, providing information is a line responsibility: in other words, responsibility for dealing with a matter is linked to responsibility for providing information about it. Information activities should therefore be planned and implemented as an integrated part of an agency's ordinary tasks. Finally, providing information is also a management responsibility: in other words, managers are responsible for maintaining the quality of information activities, for making use of information as a strategic management tool and for integrating information into steering documents, etc.

Information activities should be a continuous process. Each ministry is responsible for ensuring that environmental issues are an integral part of its own work, including information activities. Ways of ensuring that continued efforts to bring about sustainable development are regarded as a responsibility of the central government administration and that this is reflected in steering documents have already been discussed. Information activities should be closely linked to these efforts, to the annual reports and to the work done by the committee of state secretaries and the Government.

An appropriate division of roles and responsibilities must be decided for the various actors who have been involved in preparing the action plan. In some cases ministries should be given responsibility; in others it will be better to involve other partners, for example development or environmental organisations, employers' and employees' organisations, consumer organisations, the Norwegian Association of Local and Regional Authorities, the Local Agenda 21 network, etc. It must be decided who is responsible for achieving results, the mandate for each sector and how the work is to be organised. Responsibilities for developing and implementing information activities must be clearly defined. The strategies for different areas must be brief and simple, keeping in mind that they are to be used as a basis for planning and operative choices at several levels and in several areas.

Many of the bodies that were consulted on the draft action plan gave high priority to the development of an information strategy. A widespread view was that information must be specific and targeted, and not be given in the form of general information campaigns. This fits well with the Government's plans to link information activities closely to following up the action plan, including annual reports, discussion and further development of the plan. In this way, information activities can be naturally linked to specific environmental threats and other challenges relating to sustainable development, to achieving national targets, and to possible contributions from different actors, individually or together. Many NGOs showed great interest in taking part in information activities. This is in accordance with the Government's intention to involve NGOs and other partners in information activities, to provide information both to their own members and to other target groups and users.

The agencies responsible for each sector are to describe the specific targets for their work and how progress is to be assessed and results monitored. The targets should be measurable, and should be considered in conjunction with the further development of a set of indicators to illustrate important developments.

The information strategy should be developed so that all available channels of communication are used. The Internet is an effective means of communication, and it may be appropriate to develop a new portal for the national Agenda 21 or to make use of an existing one. This

would be a place where target groups could find information they need, where a dialogue between different target groups could take place, and where there would be links to other relevant websites. Another possibility is to continue to hold annual conferences on sustainable development with a broad range of participants.