SUMMARY OF GOV. BILL 2000/01:130

The Swedish Environmental Objectives – Interim Targets and Action Strategies



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Brief summary of the Bill

The proposals in this Bill will substantially strengthen the implementation of concrete environmental measures in the years to come with a view to achieving extensive environmental improvements and ecological renewal in Sweden in the next 10 years.

The Government's primary environmental objective is to hand over a society to the next generation in which the major environmental problems have been solved. The efforts to achieve sustainable development continue. The 15 environmental quality objectives, which have been adopted by Parliament with a broad majority, focus on the ecological dimension of sustainable development. They are formulated with regard to nature's capacity for absorbing environmental impacts and describe the environmental state which the environmental measures seek to achieve.

The Bill refines the framework of environmental objectives that was approved by Parliament in April 1999. At Parliament's request, the Government presents comprehensive proposals for interim targets, measures and strategies for achievement of the environmental quality objectives. The Government proposes that the new framework should replace all the environmental objectives previously adopted by Parliament within the framework of environmental policy prior to the passing of the Bill *Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden* (Gov. Bill 1997/98:145). The Bill presents proposals for interim targets and action strategies for 14 of the 15 of the environmental quality objectives. The objective Reduced Climate Impact will be dealt with in a separate Bill during the autumn. Outcomes for each environmental quality objective are described by means of examples of the environmental quality that will be achieved within a generation. Between three and eight interim targets are proposed for each environmental quality objective.

The relationship between each environmental quality objective and the related interim targets may be described as follows: the environmental quality objectives define the state of the Swedish environment which the environmental measures seek to achieve, while the interim targets state the direction and timescale for the ongoing concrete environmental measures. In most cases, the interim targets relate to the situation in 2010, although other timescales have been chosen in a few cases. The content of the interim targets varies too. Some describe a certain environmental quality target, while others set out certain changes, such as changes in emission levels, that are to be achieved.

The Government proposes introducing a monitoring and evaluation system based, among other things, on indicators. The Government proposes in this connection that an Environmental Objectives Council be set up under the Swedish Environmental Protection Agency for the task of monitoring progress towards achievement of the environmental objectives and reporting its findings to the Government prior to its periodic reports to Parliament. The Government proposes using the current fiscal year's appropriation for environmental monitoring etc. for these monitoring and reporting activities. The Government considers it important to put environmental measures into a dynamic and global perspective. Experience shows that it is difficult to predict future environmental problems. New problems and problems that have not yet been detected or are underestimated may in time have to be tackled as our understanding of environmental issues improves and new. environmentally sound technologies are introduced. Wherever possible, therefore, the present environmental objectives and instruments are designed in such a way as to allow adjustment to new conditions.

In the Government's view, a transparent environmental framework of objectives, combined with a transparent system for monitoring

and evaluation, will promote an effective goal- and result-oriented process. Priority should be given to measures which help to achieve several environmental quality objectives at the same time, as well as achieving other policy objectives. An example of this is the three strategies proposed by the Government as guidelines for future environmental activities.

Today's environmental problems involve substantial costs. They result in loss of production and destruction of materials, are detrimental to health and give rise to losses in terms of the cultural heritage and biological diversity. The benefits of a healthier environment may be expressed in terms of a reduction in the number of days spent in hospital, lower consumption of medicines, less sick leave and fewer people on invalidity pensions. Achieving sustainable development would also bring welfare gains in the form of a good living environment, preservation of biological diversity and protection of the natural and cultural landscape.

The Government proposes that Parliament approve the Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone (the 'Gothenburg Protocol'). It also proposes that Parliament approve the changes to the Montreal Protocol on Substances that Deplete the Ozone Layer.



A transparent framework of objectives for the ecological dimension of sustainable development

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, the 'Brundtland Commission', 1987). At the UN Conference on Environment and Development in Rio de Janeiro in 1992 great importance was attached to the causal connections between social, cultural, economic and ecological development. Objectives must be formulated for the three different dimensions of sustainable development in order to promote progress towards this end. The 15 Swedish environmental quality objectives focus on the ecological dimension of sustainable development.

It will be necessary to take measures in all policy areas in order to achieve the objectives. Environmental concerns must be integrated into all decision-making. Methods must be developed in order to integrate the costs of environmental impacts into economic and social decision-making models. We must improve our understanding of the environment, and the environmental quality objectives must be expressed in a form that is understandable and useful to all decision-makers.

Priority should be given to measures which help to achieve several environmental quality objectives at the same time, as well as achieving other policy objectives. The three action strategies proposed in the Bill represent an example of such an approach:

• A strategy for more efficient energy use and transport

- A strategy for non-toxic and resource-efficient cyclical systems
- A strategy for management of land, water and the built environment

Each strategy is a combination of measures and instruments that are designed to be cost-effective.

The process of monitoring and evaluation of progress towards achievement of the environmental quality objectives may reveal the need to make changes. It may also be necessary to adjust interim targets and measures to new conditions.

The environmental quality objectives and interim targets are based on five fundamental principles:

- promotion of human health
- preservation of biological diversity
- preservation of cultural heritage assets
- preservation of the long-term production capacity of ecosystems
- wise management of natural resources.

These principles are consistent with the definition of sustainable development mentioned above and the environmental measures that have been taken so far.

Framework of objectives

The 15 environmental quality objectives adopted by a broad majority of Parliament and the interim targets that are proposed in this Bill represent a coherent framework of objectives. The environmental quality objectives and interim targets will replace all the environmental objectives of various kinds previously adopted by Parliament prior to the passing of the Bill *Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Gov. Bill* 1997/98:145).

The objectives are cross-sectoral and represent starting-points for further definition, both in sectoral and geographical terms. The responsibility for defining sectoral objectives lies with the various sectors. The county administrative boards have overall responsibility for adapting the national objectives to the regional level, while the municipalities are responsible for adapting the objectives to the local level.

The relationship between environmental quality objectives and interim targets is as follows: the environmental quality objectives define the state of the Swedish environment which environmental policy should aim to achieve, while the interim targets specify concrete environmental measures and timescales for implementation. The interim targets describe the situation in a given year, usually 2010. Outcomes for each environmental quality objective are described by means of examples of the environmental quality that will be achieved within a generation.

There are at present 15 environmental quality objectives, many of which deal with biological diversity and the protection of endangered species. A sixteenth environmental quality objective may be needed as a complement to the existing objectives, and the Government therefore intends to present proposals to Parliament for a sixteenth environmental quality objective relating to biological diversity by 2005.

Sweden's environmental policy has been objective-oriented for several decades. The efforts to achieve these objectives have not been systematic, since monitoring and evaluation activities have not consistently focused on establishing whether the measures implemented have led to the desired results. An effective and simple monitoring, evaluation and reporting system is therefore proposed as a complement to the environmental objectives. This is perhaps the main difference compared with the previous approaches to environmental objectives.

It must be possible to develop and change the environmental quality objectives as we acquire new experience and improve our understanding of what must be done to improve the environment. New interim targets should therefore be formulated and integrated into the framework as necessary. Any new interim targets will first be adopted by Parliament. The interim targets should:

- 1. be precise and easily to understand
- 2. be possible to monitor in both the short and long term
- 3. be integrated into a comprehensive framework
- 4. serve as a basis for regional and local efforts to achieve the objectives.

The interim targets may have a significant impact in many different contexts by:

- providing guidance for the application of environmental legislation
- forming a basis for regional and local efforts to achieve the objectives
- being a starting-point for sectoral objectives and objectives set within the framework of environmental management systems
- determining Sweden's positions in international negotiations.



This section presents the environmental quality objectives in the perspective of a generation and the interim targets proposed by the Government.

Reduced Climate Impact

The ultimate objective of the UN Framework Convention on Climate Change is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This objective will be achieved in such a way and at such a pace as to ensure that biological diversity is preserved, food production is assured and other sustainable development objectives are not jeopardized. Together with other countries, Sweden is responsible for ensuring that the global objective can be achieved.

This environmental quality objective should be further defined and complemented by interim targets relating to emissions of carbon dioxide and other greenhouse gases and proposals for a climate strategy.

According to the Government, the outcomes within a generation for the environmental quality objective *Reduced Climate Impact* should include the following:

• The measures focus on stabilizing carbon dioxide concentrations in the atmosphere at a level lower than 550 ppm (parts per



million) and ensuring that there is no increase in the concentrations of other greenhouse gases in the atmosphere. The action taken by all countries is crucial to achievement of the objective.

The Climate Committee proposed in its report that funds should be appropriated for climate investment programmes. These funds should be used for investments that are calculated to reduced emissions of climate-affecting gases. In the Spring Finance Bill the Government allocated MSEK 400 for climate investments for the year 2004.

The objective *Reduced Climate Impact* will be dealt with in a separate Bill on a Swedish climate strategy. The Bill will be presented in the autumn of 2001.

Clean Air

The outcomes within a generation for the environmental quality objective *Clean Air* should include the following:

• Concentrations of air pollutants do not exceed low-risk concentrations for cancer or target values for protection against diseases or effects on plants, animals, materials and cultural objects. The target values are set with reference to persons who suffer from hypersensitivity and asthma.

Interim targets for Clean Air

- A level of 5 mg/m³ for sulphur dioxide as an annual average will have been achieved in all municipalities by 2005.
- A level of 20 mg/m³ as an annual average and 100 mg/m³ as an hourly average for nitrogen dioxide will have been achieved in most places by 2010.
- Ground-level ozone concentrations will not exceed 120 mg/m³ as an 8-hour average in 2010.
- 4. By 2010 emissions of volatile organic compounds (VOCs) in Sweden, excluding methane, will have been reduced to 241,000 tonnes.

The air quality in urban areas has improved in the last few decades. But several measures must be taken in order to achieve the environmental objective.

In the long term, the proposed nitrogen dioxide concentrations will be adopted as an environmental quality standard. The Government will also propose interim targets for seven substances: benzene, benzopyrene, ethylene, formaldehyde, large particles (PM 10), soot and ozone. The aim is eventually to adopt environmental quality standards for these substances too. By 2002 the Government will establish an interim target and an environmental quality standard for benzene and by 2005 an interim target for small particles (PM 2.5).



How will the interim targets be achieved?

- The interim target for sulphur dioxide will, according to the Swedish Environmental Protection Agency's calculations, have been achieved in all municipalities by 2005.
- 2. The following measures are important for the achievement of the interim target for nitrogen dioxide:
 - Road traffic tax must be revised in order to have a greater effect as an environmental instrument.
 - The requirements for tenders of mobile machinery and heavy vehicles should be made more stringent.
 - The environmental classification system for mobile machinery must be updated.
 - The municipalities must be allowed to introduce congestion charges.

- Success in achieving the interim target on ground-level ozone will depend largely on the action taken by Sweden's neighbours.
- 4. In order to achieve the interim target on VOCs the following additional measures will be necessary:
 - The construction regulations issued by the National Board of Housing, Building and Planning, which lay down emission standards for small-scale wood-fired heating in urban areas, should be expanded and also applied to rural areas.
 - Stricter emission standards in the EU for motorcycles.
 - Special EU rules for cold starts with respect to petrol-driven light goods vehicles and buses.
 - EU emission standards for petrol-driven mobile machinery, including all-terrain vehicles.

Effects of the proposals

Air pollution will be substantially reduced when the proposed interim targets are achieved. The risk of future cancers due to air pollution will be reduced by at least 50%. There will also be a noticeable improvement for persons who suffer from asthma. Reduction of ground-level ozone concentrations will lead to an increase in agricultural production and reduce loss of growth in forests.

The estimated government expenditure on achievement of the interim target is about MSEK 30 for the period 2001–2010.

Natural Acidification Only

The outcomes within a generation for the environmental quality objective *Natural Acidification* Only should include the following:

- The deposition of acidifying substances does not exceed the critical loads for land and water areas.
- Measures to prevent anthropogenic soil acidification preserve natural production capacity, archaeological objects and biological diversity.

 Forestry is adapted to the sensitivity of each site to acidification, thus preventing the acidification of land and water areas due to land use.

Interim targets for Natural Acidification Only

- By 2010 not more than 5% of all lakes and 15% of the total length of running water in the country will be affected by anthropogenic acidification.
- 2. By 2010 the trend towards increased acidification of forest land will have been reversed in areas that have been acidified by human activities, and a recovery will be under way.
- 3. By 2010 atmospheric emissions in Sweden of sulphur dioxide will have been reduced to 60,000 tonnes.
- 2. By 2010 atmospheric emissions in Sweden of nitrogen oxides will have been reduced to 148,000 tonnes.

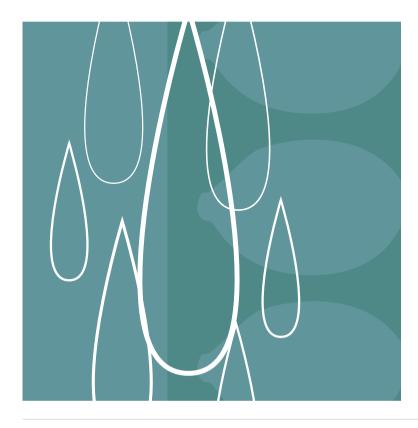
Emissions of acidifying substances have fallen in the last 15 years, but the decrease must continue if we are to achieve the objective. Sweden has encouraged the EU's efforts in this area, and this has resulted in an acidification strategy. UN conventions are also in place and will help to reduce emissions substantially up to the year 2010.

Changes as regards transports and energy use will be necessary if the environmental objective is to be achieved. The Government's proposed strategies (see section 4) will play a key role in this connection.

How will the interim targets be achieved?

I. Successful achievement of interim targets I and 2 depends on whether or not the countries that have signed international environmental conventions fulfil their obligations. The Government envisages a need of substantial expenditure on liming, starting in 2002, to deal with the problems existing in all Category I-3 lakes and streams according to the National Liming Plan.

- 2. It should be possible to achieve interim target 3, which relates to emissions of sulphur dioxide, mainly by reducing the sulphur concentrations in marine oils. The data on emissions are rather uncertain and will be carefully analysed and evaluated. When this has been done the Government will be able to present proposals for further measures.
- 3. Various measures will be necessary to reduce emissions of nitrogen oxides, and some of these measures are also dealt with under the objective *Clean Air*, viz.:
 - A review of the road traffic tax
 - Updating of the environmental classification system for mobile machinery
 - A review of the nitrogen oxide tax system.



The Government will return to two issues not included in the interim targets, i.e. emissions from foreign shipping and air transport, in its Infrastructure Bill. The Swedish Maritime Administration has pointed out the need in this connection for more stringent differentiation of navigation charges on environmental grounds. The other issue concerns long-term measures to create an infrastructure for sustainable development.

Effects of the proposals

It will take a long time for acidified areas to recover, but the load will be substantially reduced. Implementation of the international conventions will reduce the number of areas in Sweden where the critical load is currently exceeded from over 6 million hectares to just over 1.5 million hectares. In addition, the proportion of the land area that is affected by the critical load for eutrophication will be reduced from 14% in 1990 to about 4% in 2010.

Health problems will diminish, as will the damage caused to cultural monuments and objects.

The estimated government expenditure on achievement of the interim targets I and 2 is about MSEK 2,300 for the period 2001–2010. The Government estimates that it will be necessary, starting in the year 2002, to allocate an extra MSEK 15 per year compared with the 2001 expenditure level. Interim targets 3 and 4 will not involve any public expenditure, since they will be implemented within the framework of tax switching or by some other cost-neutral method.

A Non-Toxic Environment

The outcomes within a generation for the environmental quality objective *A Non-Toxic Environment* should include the following:

- The concentrations of substances that naturally occur in the environment are close to the background concentrations.
- The levels of foreign substances in the environment are close to zero.

- Overall exposure in the work environment, the external environment and the indoor environment to particularly dangerous substances is close to zero and, as regards other chemical substances, to levels that are not harmful to human health.
- Polluted areas have been investigated and cleaned up where necessary.

Interim targets for A Non-Toxic Environment

Polluted areas will have been identified, and in the case of at least 100 of the areas prioritized on account of the risks they pose to human health and the environment, cleanup and remediation operations will have started by 2005. The operations will have been completed in at least 50 of these areas.



How will the interim targets be achieved?

The Government will take steps to ensure that the cleanup of the polluted areas continues. The areas that pose a great or very great risk to human health and the environment will be restored within a generation. There are about 7,000 such areas in Sweden. The Government will present proposals at a later stage for new interim targets for 2010 in connection with the evaluation of the environmental quality objectives.

The work of surveying and cleaning up polluted areas has been in progress for about 10 years. Parliament has set aside about MSEK 152 for this purpose in 2001. This amount will increase every year, and by 2004 it will be about MSEK 550. The Swedish Environmental Protection Agency, the county administrative boards and municipalities will be responsible for most of these operations. Government grants will only be made in cases where no-one can be held liable. Cleanup operations are also undertaken by the private sector.

All the county administrative boards should have prepared a regional remediation programme by the end of 2002. The polluted areas must be identified, studied and risk-classified by the end of 2005. Ongoing technological development and capacity-building may be crucial to achievement of the interim target, and it is therefore important to monitor and evaluate progress in this area.

Private individuals or enterprises are responsible for cleaning up about half of the 7,000 areas. Implementation of the private cleanup projects is essential for achievement of the generation objective and the interim target.

Cleaning up polluted areas reduces the risk of poisoning and allergies. Once they are cleaned up they also become available for building or recreation purposes.

The estimated government expenditure on achievement of the interim target is about MSEK 5,100 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make additional allocations of about MSEK 300 in 2002, about MSEK 330 in 2003 and about MSEK 440 per year from 2004 compared with the 2001 expenditure level.



A Protective Ozone Layer

The outcomes within a generation for the environmental quality objective *A Protective Ozone Layer* should include the following:

- Sweden is taking steps to ensure that the concentrations of chlorine, bromine and other ozone-depleting substances in the stratosphere do not exceed natural concentrations.
- The use of ozone-depleting substances in Sweden is to be phased out within a generation.

Interim targets for A Protective Ozone Layer

By 2010, emissions of ozone-depleting substances will virtually have ceased.

Achievement of this target is largely dependent on international efforts. Sweden's efforts in the EU and other international

cooperation forums will therefore continue to be a high priority. At the same time, we must continue to take measures in Sweden. The use of ozone-depleting substances today is only a fraction of the use in the 1980s. The Government considers it possible to eliminate the remaining use within a generation, and in most cases even earlier. Apart from phasing out the use of these substances, it will be necessary to collect and dispose of materials and products that contain such substances.

How will the interim target be achieved?

- Clarification of the Swedish legislation so as to make sure that collected materials and products are disposed of in an environmentally appropriate manner.
- 2. The Swedish Environmental Protection Agency will be instructed to investigate the possibility, in connection with the phase-out, of imposing an obligation on the municipalities or producers to dispose of equipment and products that contain CFCs (chlorofluorocarbons), HCFCs (hydrochlorofluorocarbons), halons and other ozone-depleting substances in an environmentally appropriate manner. The Swedish Environmental Protection Agency will also be instructed to develop methods for monitoring and evaluating progress on this interim target.
- 3. Regional and local targets and action strategies.
- 4. Greater attention will be paid by international organizations and in conventions to the risk of an increase in aviation in the stratosphere.
- 5. In 2002 the replenishment of HCFCs in existing refrigeration units in Sweden will be prohibited, with the exception of essential use by the armed forces. The Government considers it necessary, however, to add a time limit to these provisions by which the use of the substances in existing refrigeration units will have to be terminated.

Effects of the proposals

Global depletion of ozone-depleting substances will result in less damage being caused to fisheries, agriculture and materials. There will also be a decline in the incidence of disease. It has been estimated that about 130 million cases of skin cancer and 120 million cases of cataracts could be avoided if all countries met their obligations under international conventions.

The estimated government expenditure on achievement of the interim target is about MSEK 700 for the period 2001–2010.

A Safe Radiation Environment

The outcomes within a generation for the environmental quality objective A Safe Radiation Environment should include the following:

• Radiation doses will be limited as far as reasonably possible.



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- The maximum public radiation exposure (absorbed dose) due to human activities will not exceed I millisievert (mSv) per person per year.
- Serious incidents and accidents in nuclear installations will be prevented. The spread of radioactive substances is prevented or limited where accidents nevertheless occur.
- The effects of UV radiation will be limited as far as possible.
- Any risks associated with electromagnetic fields will be identified as far as possible and necessary measures will be taken as potential risks are identified.

Interim targets for A Safe Radiation Environment

- 1. By 2010 the concentrations of radioactive substances in the environment emitted from all human activities will be so low as not to represent a threat to human health or biological diversity. The additional individual dose to members of the public will be lower than 0.01 mSv per person per year from each unit.
- 2. By 2020 the annual incidence of skin cancer caused by the sun will not be greater than that in 2000.
- 3. Studies will continue to be made of possible risks associated with electromagnetic fields and necessary measures will be taken as potential risks are identified.

Research is needed to improve our understanding of electromagnetic fields. The Government will present interim targets at a later stage for indoor radon concentrations in a separate Bill on the indoor environment.

How will the interim targets be achieved?

- The Government proposes the following measures in order to achieve the interim target:
 - An environmental monitoring programme for radioactive substances in the environment. The National Radiation

Protection Institute is the responsible authority and has received an extra MSEK 2,000 in 2001 in order to undertake this measure.

- Research in radioecology should be strengthened. In the appropriation instrument for 2001 the National Radiation Protection Institute was assigned coordinating responsibility in this area.
- A review of reactor safety will be carried out at the Swedish nuclear plants.
- 2. The most important measure when it comes to achieving interim target 2 is to raise public awareness of the risks of UV radiation. The National Radiation Protection Institute and other authorities should therefore be assigned the task of informing the public of the risks associated with sunbathing.
- 3. Further research is needed in order to identify possible connections between exposure to the sun and health risks. In the appropriation instrument for 2001 the National Radiation Protection Institute was assigned coordinating responsibility in this area. The National Board of Housing, Building and Planning has also been instructed by the Government to investigate the effects of the expansion of mobile telecom networks.

Effects of the proposals

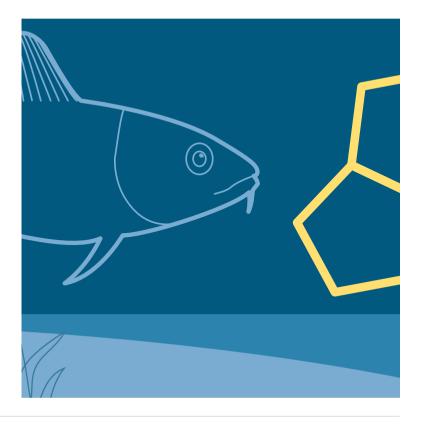
The proposed interim target for radioactive emissions represents a sharp reduction compared with today's concentrations, which are already low. Emission controls will be stricter and knowledge in this area will be improved. It will only be possible to establish the effects of the UV target in 10–20 years' time.

The estimated government expenditure on achievement of the interim target is about MSEK 680 for the period 2001–2010.

Zero Eutrophication

The outcomes within a generation for the environmental quality objective *Zero Eutrophication* should include the following:

- Nutrient inputs do not cause adverse effects to human health and are not detrimental to biological diversity.
- The deposition of airborne nitrogen compounds does not exceed the critical load for eutrophication of soil and water anywhere in Sweden.
- Groundwater does not contribute to eutrophication of surface water.
- The nutrient status of lakes and streams in forest and mountain areas is the same as in nature.
- The nutrient status of lakes and streams in agricultural areas



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does not exceed natural concentrations, which means that the water may at most be nutrient-rich or moderately nutrient-rich.

- Nutrient concentrations in coastal waters and seas are essentially the same as in the 1940s, and nutrient inputs into the sea do not cause eutrophication.
- The ecological status of lakes and streams, as defined by the Water Framework Directive (Directive 2000/60/EC), is good.
- The ecological status of Sweden's coastal waters, as defined by the Water Framework Directive, is good.
- Nutrient concentrations in forest land are such as to promote preservation of the natural composition of species.
- The nutrient status of agricultural land is such as to preserve biological diversity.

Interim targets for Zero Eutrophication

- I. By 2009 an action programme in accordance with the Water Framework Directive will be in place, specifying how to achieve a good ecological status in lakes and streams, as well as coastal waters.
- 2. By 2010 waterborne anthropogenic emissions in Sweden of phosphorus compounds into lakes, streams and coastal waters will have diminished continuously from 1995 levels.
- 3. By 2010 waterborne anthropogenic nitrogen emissions in Sweden into the sea south of Åland Sea will have been reduced by 30% compared with 1995 levels, i.e. to 38,500 tonnes.
- 4. By 2010 ammonia emissions in Sweden will have been reduced by at least 15% compared with 1995 levels to 51,700 tonnes.
- 5. By 2010 emissions in Sweden of nitrogen oxides into the atmosphere will have been reduced to 148,000 tonnes.

Achievement of the interim targets will require vigorous measures, in particular in agriculture and on the part of municipalities. The Government will present a measurable time-specified target for phosphorus by 2005. The Government also intends, where possible, to present new interim targets in connection with the amendment of the Rural Areas Ordinance.

The Government considers it necessary to take the following measures in order to achieve the interim targets: continued development of wastewater treatment plants near the coast between Strömstad and Norrtälje, improved wastewater pipeline systems, improved individual sewage treatment systems and increased supervision of such systems. In addition, wetlands may represent a complement to wastewater treatment plants when it comes to preventing nitrogen from entering lakes and seas.

The Government will instruct the Swedish Board of Agriculture to review the provisions concerning livestock density in order to reduce nutrient inputs into the soil. The taxes on artificial fertilizer and pesticides will be reviewed in order to improve their effect as environmental instruments. The EU's Common Agricultural Policy must be reformed.

How will the interim targets be achieved?

- Interim target I corresponds to the Water Framework Directive. The Directive stipulates that the Member States must adopt action programmes by 2009.
- 2. The Swedish Environmental Protection Agency will be instructed to propose detailed measures related to interim target 2 by 2005 and also to propose priorities, measures and financing. The municipalities should undertake information measures in order to persuade households with individual sewage treatment systems to reduce their use of detergents containing phosphates.
- 3. The Swedish Environmental Protection Agency will be instructed to investigate the possibility of locating the establishment of wetlands to areas where they would be most effective. Regional objectives and action programmes relating to river basin areas must also be adopted.

- 4. The methods used to store and apply manure in agriculture need to be improved. Priority should be to the island of Gotland, where the need is greatest. Further measures may be necessary. It will be possible to decide this in 2005, when the evaluation of the environmental objectives has been carried out. The environmental impact of road traffic must be reduced, for example by improving the coordination and effectiveness of goods transports and by teaching environmentally sound driving techniques.
- Described under the environmental objective Natural Acidification Only.

Effects of the proposals

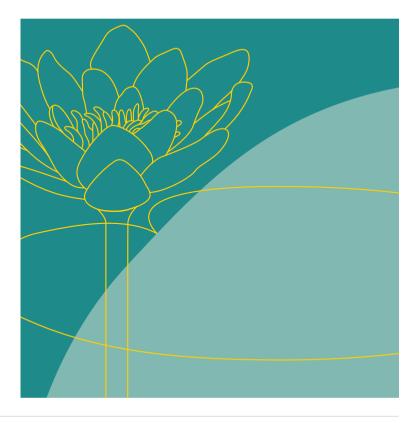
Soil and water will be healthier, and this will benefit animals and plants. That in turn will benefit agriculture, forestry, fisheries, outdoor recreation and bathing. The measures will also reduce the adverse effects to human health, buildings and the cultural heritage.

The estimated government expenditure on achievement of the interim target is about MSEK 600 for the period 2001–2010. The expenditure is budgeted under the Environmental and Rural Development Programme up to the year 2006.

Flourishing Lakes and Streams

The outcomes within a generation for the environmental quality objective *Flourishing Lakes and Streams* should include the following:

- Nutrient inputs and pollution do not have an adverse effect on biological diversity.
- Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.
- The valuable natural and cultural assets of lakes, beaches and streams are protected and maintained prudently and sustainably.
- There are viable populations of fish and other aquatic species that are directly dependent on lakes and streams.
- Structures using water that are valuable from a cultural and historical point of view (such as watermills) continue to be used.



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- The natural flows and water levels in today's unexploited and virtually unspoiled streams are maintained, and the flows in streams affected by regulation are adjusted wherever possible to the needs of biological diversity.
- A good preservation status is maintained for valuable habitats for endangered, rare or care-demanding species and for natural habitats.
- Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.
- Lakes and streams have a good surface water status with respect to the composition of species and chemical and physical conditions in accordance with the Water Framework Directive.
- Genetically modified fish are not released.
- Biological diversity is restored and maintained in lakes and streams.

Interim targets for Flourishing Lakes and Streams

- 1. By 2005 the competent authorities will have identified and produced action programmes for particularly valuable natural and cultural environments in or next to lakes or streams that need long-term protection. By 2010 long-term protection will be provided for environments that are worth protecting.
- 2. By 2005 the competent authorities will have identified and produced action programmes for the restoration of Swedish streams that need protection or streams that may be considered worth protecting after remediation. By 2010 at least 25% of valuable lakes and streams that are potentially worth protecting will have been restored.
- 3. By 2009 water supply plans, including water protection areas and protective provisions, will have been adopted for all large public surface water sources, i.e. surface water sources that are used to supply more than 50 persons or more than 10 m³ per day on average.

- 4. By 2005 aquatic animals and plants will be released in such a way as not to adversely affect biological diversity.
- 5. By 2005 action programmes will be under way for endangered species and fish stocks that are in need of targeted measures.
- 6. By 2009 an action programme containing measures that will help to achieve a good surface water status will have been adopted in accordance with the Water Framework Directive.

Extensive measures, both at the national and international levels, will be necessary in order to achieve this environmental objective. Success in achieving the objective will depend on the measures described under the environmental objectives Natural Acidification Only, A Non-Toxic Environment and Zero Eutrophication. It is also important to ensure that unspoiled streams are not affected, for example by hydropower developments. In the Government's view, the Water Framework Directive and the national instruments that are available, such as the Planning and Building Act, should be sufficient to achieve the objective. However, it may be necessary to add rules to the Environmental Code specifying areas of national interest for the water supply. The Government will implement the Water Framework Directive in Sweden as soon as possible.

How will the interim targets be achieved?

- I. The Swedish Environmental Protection Agency and the Swedish Threatened Species Unit will be instructed to prepare a preservation strategy for lake and stream environments that are worth protecting. The Agency will also present proposals for a general system of riparian strips. The National Heritage Board will be instructed to prepare strategies for preserving valuable cultural and historical environments situated near lakes and streams.
- The necessary data for achievement of the interim target will be produced in connection with the assignments mentioned under interim target 1.

- The municipalities and county administrative boards should adopt local and regional water supply plans.
- 4. About 90% of the salmon in the Baltic Sea are cultivated and released. The National Board of Fisheries, The Swedish Environmental Protection Agency and the Swedish Threatened Species Unit will be instructed to study the ecological consequences of releasing salmon and devise indicators etc. Genetically modified fish are not released in Sweden today and, according to the Government, should not be released in future either.
- 5. the Swedish Environmental Protection Agency and the Swedish Threatened Species Unit will be instructed to prepare and implement action programmes for endangered species.
- The Government will investigate as soon as possible ways and means of establishing an administrative system for river basin management plans.

Effects of the proposals

Examples of gains in terms of the public economy are better drinking water and consequently improved public health. Better conditions in lakes and streams encourage fishing and tourism. The proposals are also likely to help to reduce costs due to soil erosion, landslides and flooding.

The estimated government expenditure on achievement of the interim target is about MSEK 700 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make additional allocations of about MSEK 30 per year in 2002–2003 and about MSEK 80 per year from 2004 compared with the 2001 expenditure level.

Good-Quality Groundwater

The outcomes within a generation for the environmental quality objective *Good-Quality Groundwater* should include the following:

- Groundwater quality is not adversely affected by human activities such as land use, extraction of natural gas, pollutant inputs etc.
- The quality of the groundwater that leaks out helps to provide good habitats for plants and animals in lakes and streams.
- Consumption or other human impacts do not lower the groundwater level so as to jeopardize the supply and quality of the water.
- The levels of anthropogenic pollution in groundwater are so low that its quality meets the requirements for good drinking water quality in accordance with Swedish standards for drinking water and good groundwater status under the Water Framework Directive.

Interim targets for Good-Quality Groundwater

- 1. By 2010 long-term protection against development activities that restrict water use will be provided for aquiferous geological formations that are important for present and future water supply needs.
- 2. By 2010 the use of land and water will not cause changes in groundwater levels that adversely affect the water supply, soil stability or animal and plant life in adjoining ecosystems.
- 3. By 2010 all water sources that are used to supply more than 50 persons or more than 10 m³ per day on average with drinking water will meet the Swedish standards for good-quality drinking water in terms of anthropogenic pollution.
- 4. By 2009 action programmes will have been adopted under the Water Framework Directive that specify the measures that need to be taken to achieve a good groundwater status.



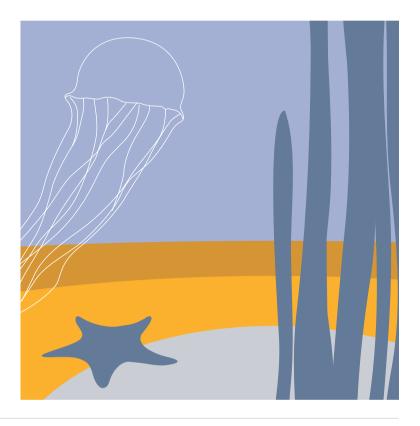
Achievement of this target depends on the implementation of measures related to the objectives *Natural Acidification Only, A Non-Toxic Environment, Zero Eutrophication* and *A Good Built Environment.*

How will the interim targets be achieved?

- I. Geological formations that can be used for drinking water sources have not yet been identified. The competent authorities will therefore be instructed to identify the geological formations that are significant for the water supply and to propose formations that are in need of statutory protection. To make this possible, municipalities will have to survey the water needs of urban and rural areas, supplies of appropriate water resources and water supply deficiencies by 2005.
- 2. The competent authorities will be instructed to produce a

manual containing methods and documentation for water planning, identify soil, surface and groundwater resources that are of national interest for the water supply and elaborate regional water resource management programmes.

- 3. With a view to achieving the interim target, the competent authorities will be instructed, among other things, to establish protection areas, elaborate an action programme, present recommendations for water drilling etc. Municipalities will have to document individual water sources. Despite these measures, there is a risk that the target will not be met in the case of acidified water sources with high nitrogen concentrations in southern Sweden. Conversion of agriculture is of major importance for achievement of the target.
- 4. The Government will implement the Water Framework Directive in Sweden as soon as possible.



THE SWEDISH ENVIRONMENTAL OBJECTIVES - INTERIM TARGETS AND ACTION STRATEGIES

Effects of the proposals

Examples of gains in terms of the public economy are better drinking water and consequently improved public health. Better-quality groundwater will also improve conditions for plants and animals. It will reduce the cost of finding alternative groundwater sources today and new groundwater sources in the future.

The estimated government expenditure on achievement of the interim target is about MSEK 100 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make an additional allocation of about MSEK 10 per year from 2004 compared with the 2001 expenditure level. The county administrative boards will receive about MSEK 27 for the preparation of water resource management programmes.

A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

The outcomes within a generation for the environmental quality objective *A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos* should include the following:

- Endangered species and stocks can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.
- A good conservation status is maintained for habitats for endangered, rare and care-demanding species and for natural biotopes that are worth preserving.
- The natural beauty and natural and cultural assets of coastal and archipelago landscapes, biological diversity and variation are maintained by continuing prudent use.
- Consideration is given, in connection with fishing, shipping and other uses of seas and water areas, as well as construction and other development in coastal and archipelago areas, to the productive capacity, biological diversity, natural and cultural assets and outdoor recreation assets of the water areas.

- Measures are taken to maintain low noise levels.
- Buildings and built environments in coastal and archipelago landscapes that are particularly valuable are preserved and improved.
- All Sweden's coastal waters have a good surface water status in terms of the composition of species and physical and chemical characteristics, as defined by the Water Framework Directive (Directive 2000/60/EC).

Interim targets for A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

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- I. Long-term protection will be provided by 2010 for at least 50% of marine environments that are worth protecting and at least 70% of coastal and archipelago areas with significant natural and cultural assets. By 2005 another five marine areas will be protected as reserves, and the competent authorities will have decided which other areas in the marine environment are in need of long-term protection.
- By 2005 a strategy will have been adopted for preservation and use of the cultural heritage and agricultural landscape in coastal and archipelago areas.
- 3. By 2005 action programmes will be under way for endangered marine species and fish stocks that are in need of targeted measures.
- 4. By 2010 annual by-catches of marine mammals will not exceed 1% of the stocks in each case. The by-catches of sea birds and undesired fish species will have been minimized to levels that do not have an adverse effect on the populations.
- 5. By 2008, catches, including by-catches of juveniles, will not exceed regeneration, so that fish stocks can survive and, where necessary, recover.
- 6. Noise and other disturbances from boat traffic will be

negligible in particularly sensitive and other designated archipelago and coastal areas by 2010.

- 7. By 2010 discharges of oil and chemicals from ships will be minimized to a negligible level thanks to stricter legislation and increased monitoring.
- By 2009 an action programme will have been adopted under the Water Framework Directive with a view to achieving a good surface water status.

Achievement of this target will require national and international measures. Measures will need to be taken within the framework of several environmental objectives, especially *A Non-Toxic Environment, Zero Eutrophication* and *Flourishing Lakes and Streams.* The Government considers the existing legislation, in particular the Environmental Code, the Cultural Monuments Act and fisheries legislation, sufficient for achievement of interim targets 1–5. Further measures will be needed in order to achieve interim targets 6 and 7.

How will the interim targets be achieved?

- I. The Swedish Environmental Protection Agency is currently reviewing the provision for shore protection and will, among other things, study the need to strengthen shore protection in areas under strong development pressure. The National Board of Fisheries and the Swedish Environmental Protection Agency will study the possibility of introducing a ban on fishing by 2010 in one of the five proposed protected marine areas. The effects of this measure will then be evaluated. Large ships in narrow channels increase shore erosion, which is a threat to biological diversity. The Government will deal with this issue in its Transport Policy Bill.
- 2. The National Heritage Board will elaborate the strategy together with the competent authorities and county administrative boards. The county administrative boards that have prepared regional environment and management

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programmes will follow them up and report on the measures that have been implemented by 2003.

- 3. Better cooperation is necessary in the research community between disciplines relating to the marine environment and to fishing. The Research Council for Environment, Agriculture, Forestry and Community Planning should design cross-sectoral research projects. The need to prepare action programmes will depend on the success of the measures taken within the framework of other interim targets.
- 4. The National Board of Fisheries will be instructed to study the economic and biological consequences of a possible ban on the dumping of by-catches. The most suitable method for reducing by-catches is to develop selective gear, for instance seal-proof gear.
- 5. The Government considers it important to develop the environmental labelling of fish. Sweden should, in international negotiations on quotas, apply the precautionary principle, take scientific recommendations into account and advocate the elaboration of multi-annual management plans. Sweden should also urge more use of humane selective fishing methods. The National Board of Fisheries should be instructed to study the significance of bottom trawling on the marine ecosystem and propose areas where bottom trawling should be banned. There must be a sharp reduction in catches of wild salmon. This could be achieved, for example, by marking all cultivated salmon.
- 6. The county administrative boards and municipalities are authorized to establish noise-free areas with little or no motorboat traffic in combination with special channels for pleasure craft.
- 7. It will be possible to achieve the interim target by means of effective legislation. In spring 2001 the Government will present proposals that will address the shortcomings in the

current legislation. The Swedish Coast Guard will step up its marine surveillance and its satellite reconnaissance.

8. The Government will implement the Water Framework Directive in Sweden as soon as possible.

Effects of the proposals

Marine and coastal ecosystems can recover. Reducing overfishing will improve the economic prospects for many fishing enterprises.

The estimated government expenditure on achievement of the interim target is about MSEK 800 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make additional allocations of about MSEK 20 in 2002 and 2003 and about MSEK 60 per year from 2004 compared with the 2001 expenditure level.

Thriving Wetlands

The outcomes within a generation for the environmental quality objective *Thriving Wetlands* should include the following:

- There are wetlands of various kinds all over the country with preserved biological diversity and cultural and historical assets.
- Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.
- Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.
- Peat extraction is carried on in sites that are suitable with regard to the natural and cultural environment and biological diversity.
- As far as possible, wetlands are protected against drainage, peat extraction, road construction and other development operations.
- The recreational value of wetlands is protected.

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Interim targets for Thriving Wetlands

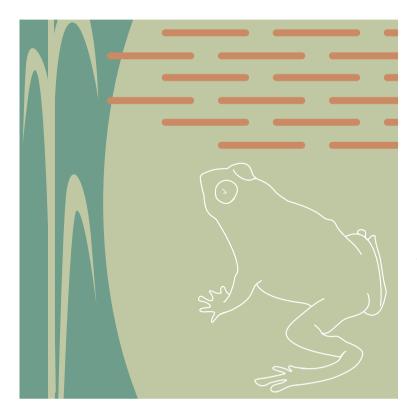
- A national strategy for protection and management of wetlands and swamp forests will be adopted by 2005.
- 2. Long-term protection will be provided by 2010 for the wetland areas listed in the Bog Protection Plan for Sweden.
- 3. By 2004, forest truck roads will not be built over wetlands of significant natural and cultural value or in such a way as to make a harmful impact on such wetlands in other respects.
- 4. At least 12,000 hectares of wetlands and ponds will be established or restored on agricultural land by 2010.
- 5. Action programmes will be under way by 2005 for endangered species that are in need of targeted measures.

A selection of swamp forests should be included in the Bog Protection Plan, and the findings of the wetlands survey in Norrbotten county should be incorporated into the Plan. Vigorous efforts by the forestry and agriculture sectors are essential if the target is to be achieved.

How will the interim targets be achieved?

- I. The Swedish Environmental Protection Agency, the National Board of Forestry, the Swedish Board of Agriculture, the National Heritage Board, the Swedish National Energy Administration, the county forestry boards and the county administrative boards will collaborate on the preparation of action strategies that can form a basis for a national wetlands strategy. Peat extraction is one of the issues dealt with in this interim target.
- 2. A revised Bog Protection Plan should serve as a basis for assessments of the appropriate extent of bog protection. The Swedish Environmental Protection Agency, the National Board of Forestry, the Swedish Board of Agriculture, the National Heritage Board, the county forestry boards and the county

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administrative boards are responsible for revising and supplementing the Plan.

- 3. According to the rules issued by the National Board of Forestry, forest truck roads should be built in such a way as to avoid or limit damage to the natural and cultural environment. The Government considers the current legislation sufficient for this purpose, but a longer period of implementation may be necessary for it to have an effect. The Government intends to return to the question of further restrictions on forest truck roads at a later stage.
- 4. The interim target will be achieved by implementing a strategy for the development of quality criteria and by concrete measures in the form of establishment and restoration projects. The Swedish Environmental Protection Agency, the Swedish Board of Agriculture, the National Heritage Board, the county

forestry boards and the county administrative boards have primary responsibilty.

5. The Swedish Environmental Protection Agency is preparing an action programme for endangered species. The question whether further action programmes will be needed depends on the success of the measures undertaken within the framework of other objectives and interim targets.

Effects of the proposals

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These proposals aim, among other things, to raise public awareness about wetlands and to preserve biological diversity.

The estimated government expenditure on achievement of the interim target is about MSEK 1,900 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make additional allocations of about MSEK 30 in 2002 and 2003 and about MSEK 130 per year from 2004 compared with the 2001 expenditure level.

Healthy Forests

The outcomes within a generation for the environmental quality objective Healthy Forests should include the following:

- The natural production capacity of forestland is preserved.
- The natural functions and processes of forest ecosystems are maintained.
- Natural regeneration is practised wherever the land is suitable for this method.
- The forests' natural hydrology is protected.
- No remedial measures are taken against the effects of forest fires.
- Care-demanding forests with valuable natural and cultural assets are managed in such a way as to preserve and enhance these assets.



- Forests where there is great variation in the age of the trees and the composition of tree species are protected.
- Cultural monuments and environments are protected.
- Importance is attached to forests as sources of nature experiences and recreation are taken into account.
- Endangered species and natural ecosystems are protected.
- There are viable populations of domestic plant and animal species living in natural conditions.
- Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.
- Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.

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Interim targets for Healthy Forests

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- A further 900,000 hectares of forest land in need of protection will be excluded from forest production by the year 2010.
- 2. The amount of dead wood, the area of forest with a high proportion of deciduous trees and old-growth forest will be maintained and increased by 2010 by:
 - → increasing the quantity of hard dead wood by at least 40% throughout the country and considerably more in areas where biological diversity is particularly at risk;
 - → increasing the area of established forest with a high proportion of deciduous trees by at least 10%;
 - \rightarrow increasing the area of old-growth forest by at least 5%;
 - \rightarrow increasing the area regenerated with deciduous forest.
- 3. Forest land will be managed in such a way as not to damage ancient monuments and to ensure that damage to other well-known and valuable cultural remains is negligible by 2010.
- 4. By 2005 action programmes will be under way for endangered species that require targeted measures.

The Government considers it possible to achieve the interim targets within a generation and that there are sufficient resources to preserve our virgin forests.

How will the interim targets be achieved?

- I. The Government's proposals go beyond the assessment presented in the 1998 Bill Swedish Environmental Quality Objectives. Apart from the measures undertaken on about 400,000 hectares of state-owned forest, the success of the interim target depends on voluntary protection measures taken by forest enterprises and individual forest-owners on at least 500,000 hectares of forest land.
- Advice and information from the National Board of Forestry and the county forestry boards will be needed to achieve this target.

- 3. Advice and information from the competent authorities will be necessary for achievement of this target too.
- 4. The need for action programmes for endangered species depends on measures taken with respect to other interim targets. However, the Government considers it necessary to introduce a strategic action programme to protect about 30 species in forests, as well as action programmes for other endangered species. The Swedish Environmental Protection Agency and the Swedish Threatened Species Unit will be instructed to prepare these programmes.

Effects of the proposals

The new level of area protection will also make it possible to protect areas that combine significant biological assets with outdoor recreation assets.

The estimated government expenditure on achievement of the interim target is about MSEK 9,700 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make additional allocations of about MSEK 90 in 2002, MSEK 110 in 2003 and about MSEK 520 per year from 2004 compared with the 2001 expenditure level.

A Varied Agricultural Landscape

The outcomes within a generation for the environmental quality objective *A Varied Agricultural Landscape* should include the following:

- The nutrient status of arable land is well-balanced, with a good soil structure and humus content, and pollutant levels are so low as not to affect the functioning of ecosystems and human health.
- Agricultural land is cultivated in such a way as to minimize adverse environmental impacts and favour biological diversity.
- The land is cultivated in such a way as to maintain its long-term productive capacity.

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- The agricultural landscape is open and varied, with plenty of small habitats and water environments.
- Biological, cultural and historical assets in the agricultural landscape that are the result of long traditional management are preserved or enhanced.
- Particularly valuable farm buildings and environments are preserved and enhanced.
- Endangered species and habitat types, and also cultural environments, are protected and preserved.
- The habitats and dispersal pathways of non-domesticated plant and animal species in agricultural land are protected.
- The genetic variation in domesticated animals and plants is preserved. Cultivated plants are preserved to the extent possible in their historical locations.



THE SWEDISH ENVIRONMENTAL OBJECTIVES - INTERIM TARGETS AND ACTION STRATEGIES

• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.

Interim targets for A Varied Agricultural Landscape

- By 2010 all meadow and grazing land will be preserved and managed in such a way as to preserve its value. The area of traditionally managed meadow land will increase by at least 5,000 hectares and the area of the most endangered types of managed grazing land will increase by at least 13,000 hectares by 2010.
- 2. Small habitats in farmland will be preserved to at least the same extent as today throughout the country. By 2005 a strategy will have been adopted for increasing the number of small habitats in flat country.
- 3. The number of culture-bearing landscape features that are looked after will increase by about 70% by 2010.
- 4. By 2010 the national programme for plant genetic resources will be complete and there will be a sufficient number of individuals to ensure preservation of Swedish breeds of domestic animals on a sustainable basis.
- 5. By 2006 action programmes will be under way for endangered species that are in need of targeted measures.
- By 2005 a programme will have been prepared for the preservation of farm buildings of cultural and historical value.

There is a good prospect of achieving this environmental objective. The county administrative boards have primary responsibility for coordinating the measures. To ensure that the interim targets are achieved, the present Environmental and Rural Development Programme will have to be replaced by a new programme after 2006.

How will the interim targets be achieved?

1. The most important instruments for achieving the interim target are information measures and grants under the

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Environmental and Rural Development Programme for the management or restoration of valuable meadow and grazing land. In the Government's view, the county administrative boards should undertake outreach activities for landowners and inform them about various aid programmes.

- 2. The Swedish Board of Agriculture will be instructed to elaborate a strategy for the purpose of increasing the number of small habitats in flat country. The Road Traffic Administration should continue its efforts to ensure the variety of flora and fauna in grass verges.
- 3. The Environmental and Rural Development Programme is an important instrument for achieving the interim target since it promotes the integration of natural and cultural aspects into conservation efforts.
- 4. The Government has started work on a strategy for the preservation of the genetic resources of domestic breeds which, together with the evaluation of the Common Agricultural Policy and the Swedish Board of Agriculture's review of the Environmental and Rural Development Programme, will make it clear whether there is a need of further aid to farmers who keep endangered domestic breeds.
- 5. The Government will instruct the Swedish Environmental Protection Agency to prepare and implement the action programmes. Measures that increase the percentage of organically farmed land are important for the achievement of the interim targets.
- 6. The purpose of this interim target is to draft a programme for maintenance and protection, in particular, of farm buildings, since these are the buildings that are most at risk.

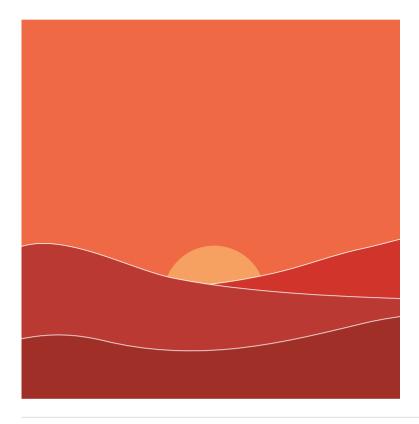
Effects of the proposals

The proposals promote biological diversity in the agricultural landscape, the preservation of an open landscape and mitigation of some of the adverse environmental effects of agriculture. The estimated government expenditure on achievement of the interim target is about MSEK 16,600 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make additional allocations of about MSEK 10 in 2002 and 2003 and about MSEK 20 per year from 2004 compared with the 2001 expenditure level.

A Magnificent Mountain Landscape

The outcomes within a generation for the environmental quality objective Magnificent Mountain Landscape should include the following:

- The majestic mountain scenery with its pastures and extensive continuous open spaces is intact.
- Biological diversity in mountainous areas is preserved.



ENVIRONMENTAL QUALITY OBJECTIVES AND INTERIM TARGETS

- Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.
- Cultural heritage assets, in particular the Sami cultural heritage, is preserved and enhanced.
- Reindeer husbandry, tourism, hunting, fishing and other use of the mountains, as well as construction and other development, are carried on with regard for the areas' long-term productive capacity, biological diversity and natural, cultural and recreational assets.
- Measures are taken to maintain low noise levels.
- Less damage is caused to mountain vegetation and the extent and thickness of the lichen cover is increasing.
- Endangered species that have suffered a significant decline can spread to new habitats in their natural area of distribution, thus ensuring viable populations.
- Local stocks of fish and other aquatic species in mountain lakes and streams are maintained.
- There is an increase in areas which offer valuable experiences or natural and cultural assets and are free from noise and other disturbances.

Interim targets for A Magnificent Mountain Landscape

- Damage to soil and vegetation caused by human activities will be negligible by 2010.
- 2. The noise from motor-driven vehicles in mountain country and aircraft will decrease and meet the following specifications:
 - → at least 60% of all-terrain vehicles and snowmobiles will meet stringent noise requirements by 2015 (lower than 73 dBA);
 - → by 2010 the noise from aircraft will be negligible both in class A regulated areas under the Cross-Country Driving Ordinance and in at least 90% of the national park area.

- 3. By 2010 long-term protection including, where necessary, management and restoration will have been provided for most of the mountainous areas that are of great natural and cultural value.
- 4. By 2005 action programmes will be under way for endangered species that are in need of targeted measures.

How will the interim targets be achieved?

- I. Various measures will be necessary in order to achieve the interim target, e.g. development of new cross-country vehicles that make less impact on the environment. The Government will also make cross-country driving plans compulsory under the Cross-Country Driving Ordinance. Further interim targets and measures may be considered.
- 2. The Government considers it necessary to elaborate and introduce a system for voluntary and environmental classification of all-terrain vehicles and snowmobiles. The Swedish Environmental Protection Agency will be instructed to investigate the matter together with the National Road Administration and the National Board of Occupational Safety and Health. The assignment will include making proposals for noise standards. The Government intends to impose a ban on aircraft takeoffs and landings in regulated areas. Overflights over regulated and protected areas will be restricted. The Government is also considering imposing compulsory notification for all organized aviation in regulated and protected areas.
- 3. The interim target will require an expanded knowledge base, which the Government assumes will be produced by the responsible authorities. Special measures are being considered for protection of the natural and cultural assets associated with sub-mountain agriculture.
- 4. The Swedish Environmental Protection Agency and the Swedish Threatened Species Unit will be instructed to prepare and

implement action programmes for endangered species. The National Board of Fisheries should carry out a study of the impact on fish stocks of recreational fishing and fishing for personal use.

Effects of the proposals

The measures will have a favourable effect on outdoor recreation and biological diversity.

The estimated government expenditure on achievement of the interim target is about MSEK 100 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make an additional allocation of about MSEK 10 per year from 2004 compared with the 2001 expenditure level. The county administrative boards concerned will receive MSEK 2.25 for the development of regional environmental and management programmes for the mountain region.

A Good Built Environment

The outcomes within a generation for the environmental quality objective A Good Built Environment should include the following:

- The built environment provides aesthetic experiences and wellbeing and offers a wide range of housing, workplaces, services and culture that give everybody the opportunity to live a full and stimulating life, while reducing everyday transport needs.
- The cultural, historical and architectural heritage in the form of buildings and built environments, including places and landscapes with special assets, are protected and enhanced.
- A sustainable urban structure is developed, both in connection with the location of new buildings, structures and industries and with the use, management and conversion of existing buildings.
- The living and leisure environment, and wherever possible the work environment, meets society's requirements in terms of

design, freedom from noise and access to sunlight, clean water and clean air.

- Areas of unspoiled nature and green spaces close to built-up areas, which are easily accessible, are protected in order to meet the need of play, recreation, local farming and a healthy local climate.
- Biological diversity is preserved and enhanced.
- Transports and transport facilities are located and designed in such a way as to limit interference with the urban or natural environment and so as not to pose health or security risks or be otherwise detrimental to the environment.
- Environmentally sound, good-quality public transport systems are available, and there are plenty of facilities for safe pedestrian and cycle traffic.



ENVIRONMENTAL QUALITY OBJECTIVES AND INTERIM TARGETS

- People are not exposed to harmful air pollutants, noise nuisances, harmful radon levels or other unacceptable risks to health or safety.
- Land and water areas are free of toxic and dangerous substances and other pollutants.
- The use of energy, water and other natural resources is efficient, resource-saving and environmentally sound; the preferred energy sources are renewable.
- Natural gas is only used where it is not possible to use substitutes in specific applications.
- Deposits of gravel that are valuable for the drinking water supply and the natural and cultural landscape are preserved.
- The quantity and dangerousness of waste are decreasing.
- Waste and residues are separated by categories and recycled on a cooperative basis by urban areas and the surrounding rural areas.

Interim targets for A Good Built Environment

Planning documentation

- By 2010 spatial and community planning will be based on programmes and strategies for:
 - → achieving a varied supply of housing, workplaces, services and culture in order to reduce car use and improve the scope for environmentally sound and resource-efficient transports;
 - → preserving and enhancing cultural, historical and aesthetic assets;
 - → preserving and enhancing green and water areas in urban and suburban areas and ensuring that the percentage of hardened surfaces does not increase;
 - → promoting more efficient energy use, the use of renewable energy resources and the development of production plants for district heating, solar energy, biofuels and windpower.

Built environments of particular cultural and historic value

2. By 2010 built environments of particular cultural and historic value will be identified and a programme adopted for protection of these values. In addition, long-term protection will be provided for at least 25% of valuable built environments.

Noise

3. By 2010 the number of people who are exposed to traffic noise in excess of the target values approved by Parliament for noise in dwellings will have been reduced by 5% compared with 1998.

Gravel extraction

4. By 2010 the extraction of gravel in the country will not exceed
12 million tonnes per year and the proportion of reused
materials will represent at least 15% of the ballast used.

Waste

- 5. The quantity of landfilled waste, excluding mining waste, will be reduced by at least 50% by 2005 compared with 1994, at the same time as the total quantity of waste generated does not increase.
- 6. All landfill sites will conform to uniform standards by 2008 and will meet stringent environmental requirements in accordance with Council Directive 1999/31/EC on the landfill of waste.

Energy use etc. in buildings

7. The environmental impact made by energy use in residential and commercial buildings will decrease and be lower in 2010 than in 1995. This will be achieved, inter alia, by improving the efficiency of and eventually reducing energy use.

The Government will present proposals for interim targets relating to the recirculation of phosphorus by 2005.

How will the interim targets be achieved?

 Preparing programmes and strategies is primarily the responsibility of municipalities and county administrative boards. This work is to be completed by 2010, but it will be 59

necessary to carry out a national evaluation during this period in order to assess the need of further measures in order to achieve the interim target. The Government considers it necessary to review the Planning and Building Act.

- 2. The Government will appoint a special investigator to present proposals for improved protection for buildings of particular cultural and historical value. The National Heritage Board will be instructed to prepare more complete factual documentation for the formulation of additional interim targets.
- 3. The Swedish Environmental Protection Agency will be instructed to prepare an action programme for noise. The Agency will also be assigned clearly defined coordinating and follow-up responsibility for the noise abatement measures. Issues relating to traffic noise will also be dealt with in the Government's Transport Policy Bill.
- 4. The Geological Survey of Sweden should be instructed to conclude voluntary agreements as a means of distributing responsibility for achievement of the interim target by 2010.
- 5. and 6. A number of measures have been implemented or are under way, including the Government's new waste policy (presented in Bill 1996/97:172), the waste tax, the Directive on the landfill of waste, which is to be implemented by July I 2001, and assignments concerning waste to be carried out by the Swedish Environmental Protection Agency. The Government considers these measures sufficient in order to achieve interim targets 5 and 6.
- 7. It should be possible to achieve this interim target by improving the efficiency of overall energy use and eventually reducing energy consumption. The Government will analyse the consequences of a possible ban on direct electric heating in new buildings, as well as the effects of restricting the use of direct electric heating in new second homes. The use of fossil energy sources will be gradually reduced. A pilot project concerning housing quality declarations is in progress.

Effects of the proposals

More efficient energy use reduces the impact on the environment, for example in the form of reduced carbon dioxide emissions. Lower noise levels will raise the quality of life.

The estimated government expenditure on achievement of the interim target is about MSEK 3,400 for the period 2001–2010. However, further resources will be needed. The Government therefore plans to make an additional allocation of about MSEK 50 per year from 2002 compared with the 2001 expenditure level.

Strategies for achieving the environmental quality objectives

A few activities – transports, energy use, flows of materials, chemicals and products, development operations and non-sustainable use of land, water and the built environment – are responsible for most of today's environmental problems. In order to achieve the environmental quality objectives, the measures that are undertaken must be coordinated and effective. Measures that help to achieve several environmental quality objectives should be given priority.

The Government proposes three action strategies for achieving the environmental objectives:

- a strategy for more efficient energy use and transport in order to reduce emissions from the energy and transport sectors;
- a strategy for non-toxic and resource-efficient cyclical systems, including an integrated product policy – in order to create energy- and material-efficient cyclical systems and reduce non-point emissions of pollutants;
- 3. *a strategy for management of land, water and the built environment* – in order to meet the need of greater consideration for biological diversity, the cultural environment and human health, wise management of land and water, environmentally sound spatial planning and a sustainable built environment.

One important aim of these strategies is to coordinate and optimize various instruments.

These instruments can be divided into the following categories:

- *normative instruments*: e.g. statutory instruments and regulations issued by public authorities;
- *economic instruments*: a generic term for environment-related taxes and charges, emission quotas, premiums and subsidies;
- *informative instruments:* instruments designed to influence certain types of behaviour without actually requiring changes to be made; also, a method of disseminating information about other instruments;
- voluntary agreements and dialogue between central government and industry.

A strategy for more efficient energy use and transport

The main thrust of the strategy for more efficient energy use and transport is to contribute to achievement of the environmental objectives *Clean Air, Natural Acidification Only* and *Reduced Climate Impact,* as well as some interim targets related to *Zero Eutrophication* and *A Good Built Environment.*

The emphasis should be on cost-effective measures, including economic instruments. The use of economic instruments must be modified and extended so as to make the environmental costs visible. One method is to continue the green tax switching process.

The long-term development of passenger and goods traffic makes it necessary to revise traditional infrastructure and traffic planning policies. One element of these efforts is to create a broad and varied range of housing, workplaces, services and culture in order to reduce everyday transport needs. Another is to create alternative transport systems. The Government will return to these issues in its Transport Policy Bill.

Emissions from the energy and transport sectors will be reduced by:

- efficient technology and energy use
- economic instruments and green tax switching
- a review of the nitrogen oxide tax
- ecological aspects in construction rules
- climate investment programmes
- a qualitative development of exhaust gas and fuel standards
- introduction of renewable fuels.

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A strategy for non-toxic and resource-efficient cyclical systems

The main thrust of the *strategy for non-toxic and resource-efficient cyclical systems* is to contribute to achievement of the environmental objectives A Non-Toxic Environment, Zero Eutrophication, Reduced Climate Impact and A Protective Ozone Layer, as well as some interim targets related to A Good Built Environment.

The Government is continuing its efforts on non-toxic and resource efficient cyclical systems. The Swedish Environmental Protection Agency will be instructed to present material for further development of the integrated product policy.

Measures which contribute to the creation of non-toxic and resource-efficient cyclical systems are:

- an integrated product policy
- coordination of strategies and programmes
- the phasing out of dangerous substances
- energy- and material-efficient cyclical systems for products and services
- · reduced landfilling and safer landfill sites
- minimal losses of plant nutrients thanks to closed cycles.

A strategy for management of land, water and the built environment

The main thrust of the strategy for management of land, water and the built environment is to contribute to achievement of the environmental objectives Flourishing Lakes and Streams, Good-Quality Groundwater, A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos, Thriving Wetlands, Healthy Forests, A Varied Agricultural Landscape, A Magnificent Mountain Landscape and A Good Built Environment.

The management strategy is primarily based on three elements:

- Prudent use of land and water areas in order to protect natural and cultural assets in the environment and promote good conditions for production.
- Protection of particularly valuable environments and resources and the creation of a varied cultural and natural environment in which representative elements of our cultural heritage are preserved, as well as biological diversity.
- Environmentally sound spatial planning and construction in order to create a sustainable built environment and new buildings of high-quality, balanced extraction of natural resources and wise management of land, water and the built environment.

5 The new environmental process

To make it possible to hand over a society without any major environmental problems to the next generation, all sectors of society must take their share of responsibility. Legislation and public authorities will not do the job on their own. In practice, this means that public authorities, organizations, enterprises and individuals must pay more attention to environmental issues and sustainable development. Many small decisions affect the environment, and this increases the need of information, education and evaluation.

The new framework of objectives should make it possible to pursue environmental issues dynamically and specify what needs to be done. Legislation and economic instruments can go hand in hand with voluntary agreements and a dialogue between government and industry. The authorities should pay attention to and support the pro-environment activities of non-governmental organizations (NGOs).

Authorities' sectoral responsibility for the environment and environmental management systems

Sectoral responsibility means that authorities, enterprises and other organizations in various social sectors take responsibility for environmental issues in their fields of activity. This approach has become an important feature of Sweden's environmental policy in various contexts during the last decade. Sectoral responsibility still needs to be properly defined: what is a sector and who are the responsible sectoral players? There is also a need to create incentives for those involved to accept their responsibility.

Authorities' responsibility for ecologically sustainable development

Authorities' sectoral responsibility means that various authorities are responsible for pursuing efforts to promote sustainable development in their sectors. This responsibility involves identifying the role of the sectoral authority, formulating a basis for action in the form of possible sectoral objectives and measures, describing the effects of these measures in terms of the public economy and taking steps to ensure that the measures are implemented. The responsibility also involves keeping track of developments in the authority's field of activity and cooperating with other stakeholders in the sector.

Research, development and education

Effective research is crucial to environmental policy. The research on sustainable development should be coordinated and comprise both basic research and problem-oriented research.

One essential condition for achieving the environmental quality objectives is a good, all-round and practical education in areas that are relevant to sustainable development. The individual must have a rudimentary knowledge of environmental issues in order to contribute to sustainable development. International environmental cooperation

Environmental issues are transboundary by nature. International cooperation and international agreements are therefore essential if we are to achieve the Swedish environmental quality objectives. International cooperation differs from national efforts in many ways. Traditions, values, attitudes and approaches to pollution vary from one country to another, and this poses a great challenge to cooperation. International environment cooperation and national environmental efforts complement one another.

Swedish efforts to achieve environmental objectives are pursued in interaction with the EU's environmental policy. Forceful environmental activities at the national level give Sweden credibility when it makes demands on other countries in international forums. The Government considers that Sweden should be a leader in the field of the environment.

Several important processes in the EU, in the neighbouring region and at the global level affect Sweden's prospects of achieving the environmental quality objectives. Some of these processes are:

- the efforts to integrate sustainability strategies into the EU's policy areas
- enlargement of the EU
- Nordic cooperation and cooperation in the Baltic Sea region
- strengthened global environmental management and strengthened international environmental law

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• the task of investigating the impact of sustainable development of all new multilateral trade agreements.

Thorough preparations will lay a foundation for a successful summit on sustainable development in South Africa in September 2002, 10 years after the Rio Conference on Environment and Development. The Government will present a national report to the UN. A precondition for achieving sustainable development in all countries is global economic levelling. The Government therefore considers the fight against poverty and a transition to sustainable consumption and production patterns key issues at the South Africa summit.

The Government's objective is for the UN's efforts on behalf of sustainable development eventually to have the same status and force as its efforts on behalf of peace and security.

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Legislation

The environmental quality objectives constitute a programme of action for environmental policy. The Environmental Code represents an adaptation of the legislation to environmental developments, and the Code will be one of the instruments used to achieve the environmental quality objectives.

The environmental quality objectives are policy objectives and will form the basis of future environmental policy. The provisions of the Environmental Code and the rules issued pursuant to the Code are legal instruments for achieving the objectives. There is no conflict between the Environmental Code and the environmental quality objectives; they support one another in the work of achieving the final objective, which is sustainable development.



A system for national and regional monitoring and evaluation

In order to be able to assess whether the measures proposed for the achievement of the environmental quality objectives are effective, they must be monitored and evaluated. It is therefore necessary to establish a system for monitoring, evaluation and reporting.

If such a system is to be successful, the responsibility for implementation and reports on monitoring and evaluation activities must be clearly defined. There is also a need of uniform indicators.

National monitoring and evaluation activities

The Government considers that national monitoring and evaluation activities should be based on a limited number of indicators for each environmental quality objective. They should throw light on all the essential requirements that must be met. Indicators are not a comprehensive measure of progress, but highlight a selection of issues which is sufficient to indicate whether or not the environmental measures are making progress, and if so whether this progress is sufficient fast. Indicators should also show the extent of the contributions of various social sectors to achievement of the environmental quality objectives.

Regional and local monitoring and evaluation activities

The indicators that are designed for the national level are broadly similar to those designed for the regional level. This makes it possible to coordinate the national monitoring and evaluation system with the need of regional and local monitoring and evaluation. The county administrative boards should, together with the national authorities, other regional bodies and municipalities, further develop the proposals for a regional monitoring and evaluation system.

Division of responsibilities and coordination

One essential element of an effective monitoring and evaluation system is a clear division of responsibilities. The Government has appointed responsible authorities for each of the environmental quality objectives. The Swedish Environmental Protection Agency is responsible for 9 of the 15 objectives. The following authorities are responsible for the remaining objectives:

- The National Radiation Protection Institute is responsible for *A Safe Radiation Environment.*
- The National Chemicals Inspectorate is responsible for *A Non-Toxic Environment.*
- The Geological Survey of Sweden is responsible for *Good-Quality Groundwater*.
- The National Board of Forestry is responsible for *Healthy Forests.*
- The Swedish Board of Agriculture is responsible for *A Varied Agricultural Landscape*.
- The National Board of Housing, Building and Planning is responsible for *A Good Built Environment*.

These authorities are responsible both in relation to other authorities and to the rest of society.

An Environmental Objectives Council

The efforts to achieve the environmental quality objectives will require extensive coordination. The Government therefore intends to appoint an Environmental Objectives Council under the Swedish Environmental Protection Agency. The purpose of this is to create an organization for the task of coordinating the efforts of the various authorities and ensuring that their resources are used as efficiently as possible. The Environmental Objectives Council will be assigned the following tasks:

- carrying out comprehensive evaluations and reports of the findings to the Government of the progress of the work on the environmental quality objectives and interim targets and pointing out any conflicts between the environmental quality objectives and other objectives that have been adopted by Parliament;
- proposing indicators for the environmental quality objectives and green headline indicators in consultation with the responsible authorities;
- being responsible for overall coordination of regional adaptation of national interim targets that require efforts at the regional level;
- coordinating national and regional information measures with respect to the environmental quality objectives.

The Environmental Objectives Council will consist of representatives of authorities that have both horizontal responsibility for various aspects of the environmental quality objectives and responsibility for individual objectives, as well as representatives of county administrative boards, sectoral authorities, municipalities and the business sector.

Reporting to Parliament

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Every year the Government will present a brief report to Parliament on the progress made towards achievement of the environmental quality objectives. Every four years an in-depth evaluation of the progress made will be carried out in order to establish whether or not the instruments used or the objectives themselves need to be corrected. The purpose of the reporting and evaluations is to:

- identify the most important causes of environmental problems;
- report on whether progress is being made towards the objectives, and if so how, and whether the pace is sufficient to ensure that the objectives will be achieved within the appointed time limit;
- provide data for scenarios and forecasts;
- provide data for assessments of the possible need of more measures in order to achieve the goals in time, the need to review the environmental quality objectives, interim targets and instruments, in particular in the light of their effects from the point of view of the public economy and central government finances;
- provide data for the costing of measures.

County administrative boards and municipalities

County administrative boards

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The county administrative boards have overall responsibility for implementation and evaluation of the environmental measures at the regional level. This work should be carried out within the framework of a cross-sectoral process in a dialogue with municipalities, the business sector and other stakeholders. Regional work on the environmental quality objectives involves identifying measures that need to be taken at the regional and local levels in order to achieve the objectives and, where necessary, elaborating regional environmental objectives by way of guidelines for the environmental activities. This work should be carried out with reference to the special conditions in each region. The aims of the Environmental Code and Parliament's guidelines for community planning and resource-efficiency should be taken into account. The county administrative boards should, in view of their coordinating role as regional environmental authorities. establish cooperation with other regional authorities and other regional bodies in the work on the environmental quality objectives in order to take advantage of the possibility of coordinating measures to promote growth and employment with measures designed to achieve the environmental quality objectives. Cooperation between counties on matters relating to the environment and resource management should be further developed. The objective of sustainable development should be integrated into all the county administrative boards' activities and emphasized in future work on infrastructure planning, regional growth agreements and structural fund programmes.

Municipalities

The municipalities have overall local responsibility for ensuring good living conditions. They also have overall responsibility for local adaptation of the national objectives. They have an important part to play in the work of achieving the environmental quality objectives both in connection with their role as public authorities and their provision of services and because local objectives and action strategies can create a framework for environmental activities at the local level. Cooperation and dialogue between various local stakeholders is important as a means of gaining acceptance for improving and implementing the environmental quality objectives. Thanks to their various roles as experts and public authorities and to their political role, the municipalities are the starting-point and provide the impetus for these efforts. The work of achieving the environmental objectives is also linked to ongoing Agenda 21 and sustainable development programmes, as well as to activities on behalf of public health at the local level. The county administrative boards will support the municipalities by providing data to enable them to formulate local objectives and action programmes. The National Board of Housing, Building and Planning should, in cooperation with the competent authorities, develop, support and follow up the municipalities' work on environmental objectives in community planning.

Several municipalities have already made a great deal of progress in elaborating local environmental objectives and strategies on the basis of the national environmental quality objectives. Approaches vary, but the introduction of environmental management systems and coordination with local Agenda 21 programmes are typical features. Several municipalities are also engaged in integrating environmental objectives into their comprehensive plans.

100 Summary of economic consequences and outcomes within a generation

Capacity-building

The proposals presented in the Bill are intended to be as comprehensive as possible. Several interim targets have to do with capacity-building, since we do not yet understand enough to be able to decide how far we need to go to achieve sustainable and good living conditions. The interim targets are designed in such a way as to make it possible to decide at a later stage what measures need to be implemented in order to achieve the environmental quality objectives.

Economic consequences

Today's environmental problems involve substantial costs, not only in the form of loss of production and destruction of materials but also in terms of their adverse effects on health, the cultural heritage and biological diversity. The Environmental Objectives Committee has commissioned cost estimates for today's pollution. The Committee estimates that the total cost is well over MSEK 20,000 per year. This estimate does not include the cost of the impact made by pollutants on the environment and health.

Since the measures will be implemented by various parties, such as central government, municipalities, households and the business sector, the cost to society of environment-related health problems, in particular the cost of health care, social security and loss of production, will be reduced.

Consequences for business and industry, municipalities and households

The Environmental Objectives Committee has estimated the annual cost to business and industry at about MSEK 1,000. The fact that enterprises' environmental activities are encouraged by their customers and by other enterprises indicates that an environmental profile might in future represent a competitive weapon.

The Committee estimates the increase in costs for waste management, wastewater treatment etc. as a result of EC Directives and measures adopted under previous decisions at about MSEK 500 per year.

Most households will be affected very little by the measures taken to achieve the interim targets.

Consequences for authorities

The government agencies are already engaged in extensive environmental activities. The environmental quality objectives will occupy a key position in the new environmental objective framework as the prime movers of the environmental activities.

The Government will allocate more resources for achievement of the environmental objectives

The estimated government expenditure on the measures proposed in the Bill is about MSEK 45,000 during the period 2001–2010. Central government expenditure means expenditure financed via the central government budget.

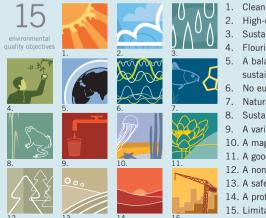
In the next three years the Government intends to increase the appropriation for measures relating to environmental objectives. Compared with the 2001 expenditure limit, there will be an increase of MSEK 555 for 2002, MSEK 605 for 2003 and MSEK 1,365 for 2004

The total budget appropriation for the environment will increase by almost 70% during the period 2001–2004.

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The Government's primary environmental objective is to hand over a society to the next generation in which the major environmental problems have been solved. The Government proposed 15 environmental quality objectives in the Bill Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden (Gov. Bill 1997/98:145), Parliament adopted the 15 objectives and requested that the Government present concrete interim targets at a later stage. The present Bill includes proposals for interim targets and action strategies for 14 of the 15 of the environmental quality objectives. The objective Reduced Climate Impact will be dealt with later in a separate Bill. The Bill also proposes a national and regional system for monitoring and evaluation of the progress made towards achievement of the objectives.

This is a summary of the Bill, and where there are any differences between the text of the summary and that of the Bill itself, the text of the Bill is the authentic text.



Clean air

- High-quality groundwater
- 3. Sustainable lakes and watercourses
- 4. Flourishing wetlands
- 5. A balanced marine environment and sustainable coasts and archipelagos
- 6. No eutrophication
- 7. Natural acidification only
- 8. Sustainable forests
- 9. A varied agricultural landscape
- 10. A magnificent mountain landscape
- 11. A good built environment
- 12. A non-toxic environment
- 13. A safe radiation environment
- 14. A protective ozone layer
- 15. Limitation of climate change

The summary is available on the Ministry of the Environment website (www.miljo.regeringen.se). It can also be ordered from the Ministry of the Environment, phone 08-405 10 00. Stockholm, Sweden, June 2001. Article no. M 2001.11



Ministry of the Environment SE-103 33 Stockholm