

Sustainable Sweden

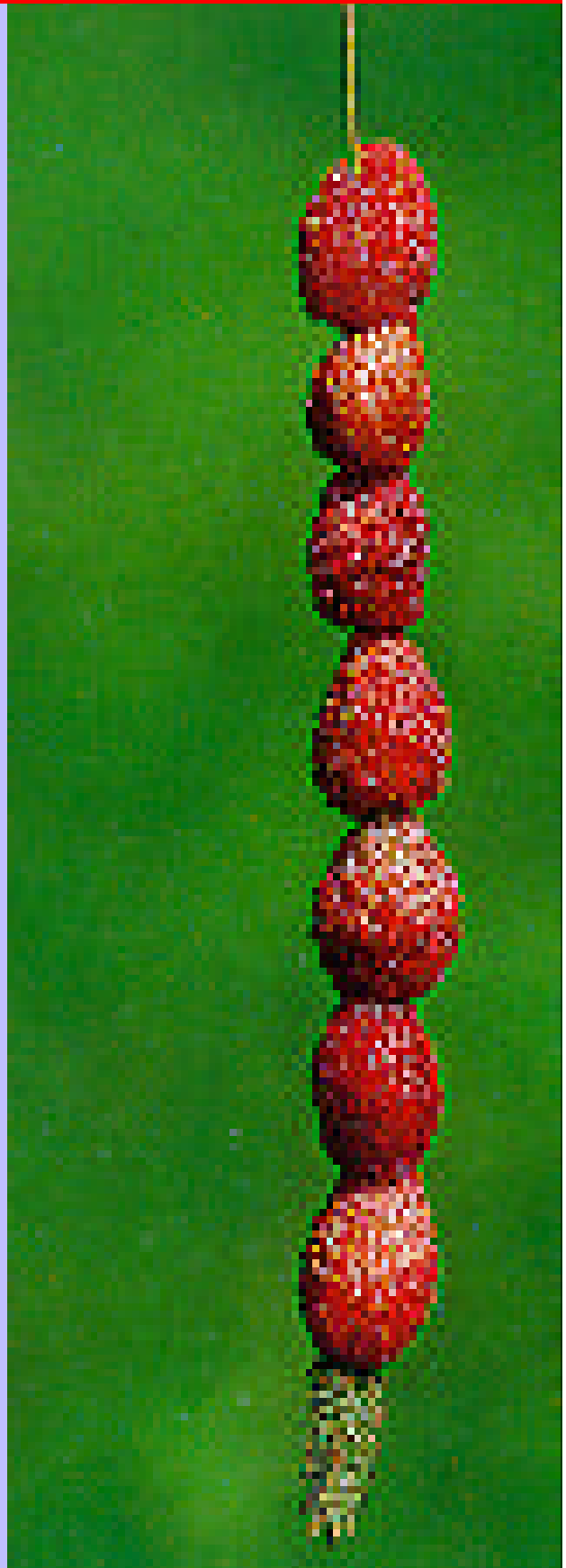
*- Progress Report and New
Measures for an Ecologically
Sustainable Development*

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Sustainable Sweden – Progress Report and New
Measures for an Ecologically Sustainable
Development

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Brief Summary of the Communication

The overall objectives in an ecologically sustainable society are long-term protection of the environment and human health, effective utilization of the earth's resources and assurance of sustainable supplies. Ecologically sustainable development is based on an integrated approach to community development in which consideration of ecological factors is combined with sound economic, social and cultural development.

In this Communication the Government reports on the progress that has been made in Sweden in the process of adjusting to ecologically sustainable development, based on the action plans described in the Government Communication *Ecological Sustainability* (Comm. 1997/98:13). The measures that were presented in the action plans have been followed up with reference to each ministry's area of activity.

During the period 1997/98, the Government has presented a number of bills relating to ecologically sustainable development. New proposals for measures have thus arisen in areas such as energy, transport, regional policy, employment, consumer policy, housing policy, forestry, agriculture and fisheries, architecture and design. An Environmental Bill was also presented to Parliament during the year, in which the objectives and concepts of ecologically sustainable development were elaborated and specified in greater detail. The new measures proposed in these bills, directly relevant to ecological sustainability, are described in the ministry-by-ministry review in this Communication.

The Communication also contains a brief report on the status of the local investment programmes, as well as of some of the initiatives that Sweden has taken in international fora in accordance with its strategy of acting as a driving force and a pioneer in the field of ecologically sustainable development.

CONTENTS

1 BACKGROUND AND SUBJECT MATTER OF THE COMMUNICATION	3
2 A SUSTAINABLE SWEDEN	4
2.1 A STRATEGY FOR ECOLOGICALLY SUSTAINABLE DEVELOPMENT.....	5
2.2 THREE OBJECTIVES OF ECOLOGICALLY SUSTAINABLE DEVELOPMENT.....	6
2.2.1 <i>Protection of the environment</i>	7
2.2.2 EFFICIENT USE OF RESOURCES.....	8
2.2.3 <i>Sustainable supplies</i>	9
2.3 EVALUATION SYSTEMS FOR ECOLOGICALLY SUSTAINABLE DEVELOPMENT	10
3 SUMMARY OF THE GOVERNMENT'S MEASURES TO PROMOTE ECOLOGICAL SUSTAINABILITY	12
3.1 SUSTAINABLE DEVELOPMENT IN THE GOVERNMENT SECTOR	12
3.2 THE GOVERNMENT'S INVESTMENT PROGRAMME – EFFECTS ON EMPLOYMENT	14
3.3 THE ECONOMY, INDUSTRY AND CONSUMERS	15
3.4 RESEARCH AND TECHNOLOGICAL DEVELOPMENT	19
3.5 SOCIAL WELFARE – ENVIRONMENT AND HEALTH, EDUCATION, CULTURE	22
3.6 COMMUNITY PLANNING, CONSTRUCTION AND TRANSPORT	25
3.7 INTERNATIONAL COOPERATION ON ECOLOGICAL SUSTAINABILITY.....	27
4 IMPLEMENTED AND NEW MEASURES DESIGNED TO PROMOTE ECOLOGICALLY SUSTAINABLE DEVELOPMENT IN THE MINISTRIES' AREAS OF RESPONSIBILITY	31
4.1 THE MINISTRY OF JUSTICE	31
4.2 THE MINISTRY OF FOREIGN AFFAIRS.....	33
4.3 THE MINISTRY OF DEFENCE.....	37
4.4 THE MINISTRY OF HEALTH AND SOCIAL AFFAIRS.....	41
4.5 THE MINISTRY OF TRANSPORT AND COMMUNICATIONS.....	47
4.6 THE MINISTRY OF FINANCE	53
4.7 THE MINISTRY OF EDUCATION AND SCIENCE	55
4.8 THE MINISTRY OF AGRICULTURE	59
4.9 THE MINISTRY OF LABOUR	63
4.10 THE MINISTRY OF CULTURE.....	66
4.11 THE MINISTRY OF INDUSTRY AND TRADE	68
4.12 THE MINISTRY OF INTERIOR	73
4.13 THE MINISTRY OF ENVIRONMENT	81
5 LOCAL INVESTMENTS.....	96
5.1 SUPPORT FOR LOCAL INVESTMENT PROGRAMMES IN 1998.....	96
5.2 CONTINUING MEASURES	100
5.2.1 <i>Support for local investment programmes in 1999-2001</i>	100
5.2.2 <i>Monitoring and evaluation</i>	101
 ENVIRONMENTAL MANAGEMENT IN GOVERNMENT ADMINISTRATION - PARTICIPATING AGENCIES.....	102
EXTRACT OF MINUTES OF CABINET MEETING HELD ON OCTOBER 1, 1998.....	104

1 Background and subject matter of the Communication

In January, 1997 the Government presented a Communication to Parliament entitled *Towards an Ecologically Sustainable Society* (Comm. 1996/97:50, Committee Report 1996/97:JoU11, Parl. Comm. 1996/97:187). It described the ongoing work on the development of strategies for ecological sustainability in various sectors.

On January 21, 1997 the Government decided to appoint a Commission on Ecologically Sustainable Development. The members of the Commission were Ministers Anna Lindh, chair, Ylva Johansson, Ulrica Messing, Annika Åhnberg och Thomas Östros. In last year's Spring Economic Bill (Gov. Bill 1996/97:150, Annex 5) the Government presented a proposal for an investment programme for ecological sustainability and a joint platform for continuing measures on the basis of the Commission's proposals. On September 11, 1997 the Government presented the Communication *Ecological Sustainability* (Comm. 1997/98:13), which set forth guidelines for continuing work, to Parliament.

The 1998 Budget Bill (Gov. Bill 1997/98:1, expenditure area 18, Committee Report 1997/98:BoU1, Parl. Comm. 1997/98:81), which was passed by Parliament, proposed allocating funds to support local investment programmes for the implementation of ecological sustainability. Support will be provided for local investment programmes for two reasons. First, because such support should help to substantially increase the pace of Sweden's adjustment to an ecologically sustainable society; second, it should increase employment. Following the Parliamentary Resolution, MSEK 5,400 has been allocated for the period 1998-2000. In the 1998 Spring Economic Bill (Gov. Bill 1997/98:150) the Government stated that the work of turning Sweden into an ecologically sustainable society should continue and proposed an additional allocation to support local investment programmes of MSEK 2,000 for the year 2001.

In 1997 and 1998 the Government presented bills in several areas that represent important aspects of the overall work to achieve sustainable development. In June, 1997 Parliament adopted new guidelines for energy policy (Gov. Bill 1996/97:84, Committee Report 1996/97:NU12, Parl. Comm: 1996/97:272). According to these guidelines, energy policy is to create the conditions for efficient use of energy and cost-effective energy supplies in Sweden and to facilitate adjustment to an ecologically sustainable society. Furthermore, in response to the Government's proposals, Parliament adopted a new Environmental Code (Gov. Bill 1997/98:45, Committee Report 1997/98:JoU20, Parl. Comm. 1997/98:278) and implementing provisions (Gov. Bill 1997/98:90, Committee Report 1997/98:JoU25, Parl. Comm. 1997/98:279), which constitute a coordinated, more stringent and broader environmental legislation for sustainable development.

In May, 1998 the Government presented *Swedish Environmental Quality Goals – An Environmental Policy for a Sustainable Sweden* (Gov. Bill 1997/98:145 – 'the Environmental Bill'). The Bill contains a detailed description of programmes designed to achieve ecologically sustainable development in various respects. The Government proposed, inter alia, a new structure for measures to achieve environmental objectives. The proposal

presents a limited number of national environmental quality goals, which specify the environmental status that is to be achieved within a generation, for adoption by Parliament. Interim goals and action strategies designed to achieve the environmental quality goals will subsequently be drafted in various sectors at different levels.

Furthermore, the Government has in the last year presented a number of other bills linked to sustainable development: *Sustainable Fisheries and Agriculture* (Gov. Bill 1997/98:2), *A Transport Policy for Sustainable Development* (Gov. Bill 1997/98:56), *Shaping the Future - an Action Plan for Architecture and Design* (Gov. Bill 1997/98:117), *A Housing Policy for Sustainable Development* (Gov. Bill 1997/98:119), *Implementing Forestry Policy* (Gov. Bill 1997/98:158), *Development and Justice – an Urban Policy for the 21st Century* (Gov. Bill 1997/98:165), and the Communication *Consumers and the Environment – an Action Plan For Sustainable Development* (Comm. 1997/98:67). Most of these have been passed or read by Parliament.

Sustainable development is a key objective of the Amsterdam Treaty. In the EU, Sweden seeks to intensify efforts to integrate environmental matters into the formulation and implementation of Community policies and activities. In the OECD Sweden promotes the strengthening of the organization's work on sustainable development. Sweden also promotes intensification of the environmental work of the United Nations within the framework of the ongoing reform process and takes an active part in the work on international environmental conventions. A central theme of Sweden's presidency of the Nordic Council of Ministers is Ecological Sustainability for the Nordic Region.

In its 1997 Communication on ecological sustainability the Government declared three primary objectives of ecological sustainability: protection of the environment, efficient use of resources and sustainable supplies of natural resources. The Communication proposed action plans for each ministry (containing 93 measures altogether) for the purpose of contributing to the achievement of these objectives. The proposed measures involve lasting changes in the activities of the ministries with a view to adjusting to ecological sustainability. The measures concern legislation, aspects of the tax system, the education system, transport infrastructure, construction etc. Special importance is attached to international cooperation on measures to achieve sustainable development.

The present Communication contains a situation report on the progress that has been made on implementation of the measures presented in last year's Communication. It also contains measures that were proposed during the year in bills and communications. There is also a concise description of the work being done on the local investment programmes.

2 A sustainable Sweden

The 1996 Statement of Government Policy declared the objective of turning Sweden into "an international driving force and a pioneer in the efforts to achieve ecologically sustainable development". The 1997 Declaration states

that the work of adjusting Sweden to ecological sustainability will continue at the same time as Sweden will meet the challenge of the 21st century by creating sustainable growth in the face of ever keener competition. The quality of life of future generations must not be jeopardized, and the aim is to hand over a society to the next generation in which the major environmental problems have been solved. The Government therefore intends to contribute actively to achieving the general goal of sustainable development at the same time as taking advantage of the opportunities that adjustment will offer Sweden.

Sustainable development was defined by the World Commission on Environment and Development (the Brundtland Commission) as development that “meets the needs of the present generation without compromising the ability of future generations to meet their own needs”. This objective includes economic, social and ecological aspects of community development, as set forth in the Final Document of the 19th Extra Session of the UN General Assembly, which was held on June 23-27, 1997. These three aspects are mutually dependent, and in order to achieve sustainable development they must be integrated and taken into account in a balanced manner. The concept *ecological sustainability* focuses in particular on the ecological dimension of sustainable development. In order to ensure that the prosperity of future generations is not jeopardized by pollution and depletion of natural resources, the Government has set three primary objectives for ecological sustainability: protection of the environment, efficient use of resources and sustainable supplies. The strategy is to achieve these goals without neglecting the economical and social dimensions. On the contrary, the economy, employment and social welfare will be favoured by this adjustment.

The 1997 Spring Economic Bill (Gov. Bill 1996/97:150) describes the mutually dependent nature of the three dimensions of sustainable development: “Economic use of natural resources, wise management of the environment and social justice are also essential conditions for sustainable economic development. At the same time, a sound economy is a condition for ecological sustainability. Sound economic, social and cultural development creates the conditions in which people can devote themselves to the work of achieving an ecologically sustainable society.”

2.1 A strategy for ecologically sustainable development

The Government’s assessment: The overall strategy for adjustment to ecological sustainability should be for Sweden to act as a pioneer and driving force in international fora by demonstrating that ecologically sustainable development can be achieved by methods and measures that also strengthen the economy and increase employment, develop industry and the infrastructure, and improve the welfare of the population.

Reasons for the Government’s assessment: In order to achieve ecologically sustainable development in Sweden it will be necessary to act in a broader arena than that presently covered by environmental policy. Practical implementation is not a task for any one sector or professional

group. All components of society, the public sector, industry, organizations and individual citizens must do their share.

Adjusting Sweden to ecological sustainability is a long-term process. An essential condition is to integrate environmental aspects and an efficiency philosophy in all sectors. This will make it possible to combine a long-term ecological approach with economic growth and increased employment.

For this effort to be successful, everyone must be aware of the ecological conditions for development. Adjustment to ecological sustainability must go hand in hand with the development of a modern information and knowledge society. The objective should be to increase the competitiveness of Sweden and Swedish industry in global terms. In the next few years the challenge will be also to promote ecological sustainability while combating unemployment. Special importance has therefore been attached in the proposed action plans to measures that will have a favourable effect on the development of industry and employment, in some cases in the short term and in others in the longer term perspective.

On the basis of the experience gained, Sweden intends to be a driving force in international fora, in particular in the EU, OECD, the UN, in international conventions and in regional development cooperation in our neighbouring region.

2.2 Three objectives of ecologically sustainable development

Everyone will play their part in the work of adjusting Sweden to ecological sustainability. Therefore, well-defined and common goals must be set for this work. In the 1997 Spring Economic Bill the Government formulated three primary objectives for ecologically sustainable development: protection of the environment, efficient use of resources and sustainable supplies. These goals highlight the ecological conditions for achievement of ecologically sustainable development, i.e. they specify the ecological conditions for a sustainable economy and the prosperity of future generations.

Protection of the environment means that emissions of pollutants must not damage human health or exceed nature's capacity for absorbing or breaking them down. Natural substances must be used in such a way as to protect the natural ecocycles. Alien substances that are harmful to health and environment should eventually be eliminated from the environment. Biological diversity must be preserved and valuable cultural environments protected.

Efficient use of resources means that energy and other natural resources must be used much more efficiently than is the case today. Energy and material flows can then be limited in such a way as to be consistent with sustainable development. Community planning, technological development and investments must also focus on resource-efficient products and processes.

Sustainable supplies means that the long-term productive capacity of ecosystems must be assured. As far as possible, supplies must be based on sustainable use of renewable resources. This means that in the long term the use of these resources must not exceed the rate at which nature creates new

resources, and materials must be recycled. We must be economical with renewable resources and continuously strive to find renewable substitutes.

These three objectives are interconnected and mutually supportive. Efficient use of resources will provide the essential conditions for achieving the two other goals: an environment that is not harmed by pollutants and economical use of resources. Protecting the environment and ecosystems is also essential if we are to assure our supplies of natural resources on a long-term basis.

2.2.1 Protection of the environment

Government Bill 1997/98:145 contains a detailed description of the primary objective of protecting the environment. It proposes that Parliament adopt fifteen new national environmental quality objectives. The Government's overall environment policy objective is to be able to hand over a society to the next generation in which the major environmental problems have been solved.

The proposed national environmental quality objectives focus on the future environmental states that are to be attained, with special reference to human health and the state of nature. Emissions of harmful substances must be reduced to safe levels that do not exceed nature's capacity for absorbing or breaking them down. Natural and cultural landscapes with valuable environmental assets must be protected and preserved, while their productive capacity is maintained and developed. The fifteen goals formulated in the Bill are: Clean air, High-quality groundwater, Sustainable lakes and watercourses, Flourishing wetlands, A balanced marine environment, sustainable coasts and archipelagos, No eutrophication, Natural acidification only, Sustainable forests, A varied agricultural landscape, A magnificent mountain landscape, A good urban environment, A non-toxic environment, A safe radiation environment, A protective ozone layer, and Limitation influence on climate change.

According to the proposals in the Environmental Bill, the Government will establish interim goals as a first step in the process towards achieving the environmental quality objectives, provided that these are adopted by Parliament. For this purpose, a number of government agencies, including the Swedish Environmental Protection Agency, have been instructed to draft proposals for interim goals and action strategies for achieving the environmental quality objectives, and also to specify the effects of these proposals on government finances and the national economy. The agencies' draft interim goals and action strategies will be submitted on October 1, 1999. The Swedish Environmental Protection Agency has been assigned overall responsibility for developing the environmental quality objectives and supporting, monitoring and evaluating the progress made on the interim goals (terms of reference dated June, 1998). For several of the environmental quality objectives the Swedish Environmental Protection Agency will share responsibility with other agencies such as the National Heritage Board, the National Board of Housing, Building and Planning, the National Chemicals Inspectorate and the National Radiation Protection Institute. The Swedish

Environmental Protection Agency will submit a progress report to the Government together with its annual report.

The long-term generation objective and the new structure of environmental policy objectives involve a completely new, cross-sectoral approach in environmental policy. Assuming that the proposed environmental quality goals are adopted by Parliament, an evaluation of this work will be needed. The Government therefore intends to appoint a parliamentary committee to carry out a review of the interim goals that need to be set in order to achieve the environmental quality goals within a generation (Dir. 1998:45). The committee will work on the basis of the agencies' reports on the task of formulating interim goals and action strategies. It will evaluate, in particular, the impact on the environment and the national economy, including the impact on government finance and on specific sectors, of interim goals and measures proposed by the Government or the agencies. It will also submit proposals for further interim goals, where necessary, as a step towards implementation of the national environmental quality objectives adopted by Parliament. The committee will report to the Government by July 1, 2000.

The parliamentary committee will not deal with the environmental quality objectives relating to climate change. The task of presenting a proposal for a coordinated Swedish strategy and an action plan with respect to the climate goal will be assigned to a separate parliamentary committee (Dir. 1998:40).

2.2.2 Efficient use of resources

The growth of the population and demands for high standards of living lead to higher consumption of resources, which in turn may increase the pressure on the environment. Using resources more efficiently is therefore a means of achieving sustainable development, both from the point of view of resource management and environmental protection, in global terms. Efficient use of all resources is also consistent with efficient industrial production. In order to achieve more efficient use of resources, all sectors and groups will have to play their part. The Government proposes the following guidelines in the Environmental Bill when it comes to measures designed to achieve more efficient and sustainable use of resources:

- Materials and energy must be used as efficiently as possible with regard to all available resources.
- The use of fossil fuels should be reduced to a low level. The total extraction of biomass must not deplete biological diversity.
- Most products must be materials- and energy-efficient, upgradable and reusable or recyclable in terms of materials or energy.

A concept that is becoming increasingly common in the international debate is Factor 10, which means that we must use resources on average ten times more efficiently within the next generation or two. In the view of many scientists, industrialists and politicians this is essential if we are to be able to face the growing population and reduce pollution without lowering living standards. Factor 10 indicates the degree to which we must increase efficiency rather than representing a precise target. Factor 10 thinking can provide a compass and encourage the necessary reappraisal. In the

Government's view, more work will be necessary, both at the national and international level, to analyse, concretize and refine the factor 10 concept. The Government therefore intends to appoint a committee to investigate the need for research and measures in connection with more efficient resource utilization.

2.2.3 Sustainable supplies

The sustainable supply objective means that the long-term productive capacity of ecosystems must be assured. This will create the conditions for sustainable supplies of *renewable resources*. This means that the utilization of renewable resources such as forests, fish etc. must not exceed the rate at which nature creates new resources. It also means that emissions must not exceed the levels at which the long-term productive capacity of ecosystems is damaged. The environmental quality objectives proposed in the Environmental Bill specify the conditions that are necessary to ensure maintenance of productive capacity and essential ecological functions, for example in lakes and watercourses, wetlands, oceans, land and forests.

The sustainable supply objective also means that the utilization of *non-renewable natural resources* must take into account sustainability and the needs of future generations. The Ecocycle Commission concludes, however, that, with a few exceptions, a scarcity of natural resources will not be the main problem. Serious problems may, however, be caused by the circulation of environmentally harmful substances at various stages of extraction, use and disposal. For example, the combustion of fossil fuels is the main cause of emissions that give rise to the greenhouse effect, acidification and ground-level ozone.

In order to assure sustainable supplies of natural resources it will be necessary to apply the ecocycle principle. The principle was formulated in connection with the Parliamentary Resolution on guidelines for an ecocycle-oriented society as follows: "Materials extracted from nature must be used sustainably, reused, recycled or finally disposed of with the minimum consumption of resources and without damaging nature" (Gov. Bill 1992/93:180, Committee Report 1993/94:JoU14, Parl. Comm. 1993/94:344).

In June, 1997, Parliament adopted new energy policy guidelines (Gov. Bill 1996/97:84, Committee Report 1996/97:NU12, Parl. Comm. 1996/97:272). According to these guidelines, energy policy is to create the conditions for efficient use of energy and cost-effective Swedish energy supplies and to facilitate adjustment to an ecologically sustainable society with as few adverse effects on health, the environment and the climate as possible. The country's electricity supply must be assured by means of energy systems based on lasting, preferably domestic and renewable energy sources and efficient use of energy. The use of fossil fuels must be minimized.

2.3 Evaluation systems for ecologically sustainable development

The Government's assessment: The systems for monitoring and evaluating the measures taken to adjust Sweden to an ecologically sustainable society should be further developed. Annual evaluation of the three primary objectives for ecological sustainability using a number of key indicators will make it possible to monitor the adjustment process at a general level. Annual reports on the ministries' action plans for ecologically sustainable development will make it possible to monitor the Government's measures in important policy areas. These reports should be presented in connection with the Budget Bill process.

Reasons for the Government's assessment: To provide data which will make it possible to assess the progress of the measures taken to adjust Sweden to an ecologically sustainable society and to determine whether any further measures are necessary, various monitoring arrangements will be needed. Monitoring should take place at a general level, for example by means of indicators showing the progress being made in various areas. Monitoring should also take place at a more detailed level in order to describe the various measures taken by the Government in order to promote this adjustment.

Intense work is in progress all over the world on the development of indicators for sustainable development. This development work is carried out mainly by the EU, the OECD and the UN, and Sweden is playing an active part in these contexts. The development of indicators also requires the development of statistics as source data. Since the adjustment to ecologically sustainable development means that environmental issues must be integrated into all sectors and affect all policy areas, it is essential that statistics from various areas can be matched. This integrated approach to statistics is being developed in Sweden, as in other countries. One example is the development of environmental accounts whose purpose is to match environmental statistics with economic statistics, which could thus be used to indicate various linkages between environmental developments and economic developments, e.g. in order to throw light on efforts to ensure a more efficient use of energy and resources. The Government has, inter alia in the Environmental Bill, emphasized the need of adequate information in the form of reliable and relevant data in time series. In connection with the drafting of proposals for environmental quality objectives in the Environmental Bill, the Swedish Environmental Protection Agency has presented proposals for an indicatorbased evaluation system (report *De Facto 98*, 1998).

The Environmental Advisory Council has presented a preliminary proposal for key indicators in its report *Key indicators for Ecologically Sustainable Development* (SOU 1998:15). The proposed indicators relate to the Government's primary objectives for ecological sustainability: protection of the environment, efficient use of resources and sustainable supplies. The Council's proposals have been circulated for comment and a revised proposal on key indicators will be presented in October, 1998. The Council proposes that a report on these indicators should be presented to Parliament annually

in connection with the Budget Bill process. The Government intends to deal with the Council's proposal during the spring of 1999.

The Government bases its measures concerning adjustment to ecological sustainability on the action plan presented in the Communication *Ecological Sustainability* (Comm. 1997/98:13). This programme contained 93 measures distributed among all thirteen ministries in the Government Offices. The presentation of annual communications on the progress made in the various ministries' areas of responsibility will furnish Parliament with continuous reports on the Government's work in the field of ecologically sustainable development. These communications should be presented in connection with the Budget Bill process and should contain a description of the effects of the measures that have been implemented in the policy areas that are most relevant to adjustment. The communications should also present new measures based on the proposals presented by the Government in bills during the last year. Chapters 3, 4 and 5 of this Communication present a first report of this kind.

3 Summary of the Government's measures to promote ecological sustainability

The challenge posed by the Government in its strategy is that ecological sustainability should be achieved with measures that at the same time strengthen the economy and increase employment. Sweden must set an example by showing that the three primary objectives of ecological sustainability can be integrated into, and promote development in all policy areas.

The key to success is broad participation by all sectors of the community: the public sector, industry and business, organizations and individual citizens. Everybody must be aware of the ecological constraints on development. Environmental aspects and resource management must be integrated into decision-making at all levels of society.

This chapter outlines the Government's implementation of its policy on ecologically sustainable development and the projected progress in some key areas. It represents a synthesis of the two following chapters, which contain details of the progress made on the action plans presented in last year's Communication on ecological sustainability (Comm. 1997/98:13) and a situation report on the local investment programmes.

3.1 Sustainable development in the government sector

The Government has emphasized in several different contexts that the government sector must set a good example as regards ecologically sustainable development. The ministries and the government agencies must assume the main burden of responsibility for paving the way for ecological sustainability by taking decisions relating to various sectors.

Work is in progress in the government administration on the introduction of environmental management systems as a tool for improving, structuring and organizing its work on ecologically sustainable development. All in all, 66 agencies, in addition to the Government Offices, are now engaged in this work (see the Annex for a complete list). The first step was to study activities that have an impact on the environment and to integrate environmental considerations and the management of resources into their internal activities. The second step will be for the ministries and agencies to review the environmental consequences of their external activities and to take these aspects into account in decision-making.

Parliament has adopted the Government's proposals for a new Environmental Code embodying more stringent and wider-ranging environmental legislation (Gov. Bill 1997/98:45, Committee Report 1997/98:JoU20, Parl. Comm. 1997/98:278). The provisions of the 15 most important Acts relating to the environment have been incorporated into the Code. The purpose of the Code is to promote sustainable development, thereby guaranteeing a healthy and sound environment for present and future generations. Furthermore, Parliament has adopted amendments to a large number of legislative measures which govern activities that may have an environmental impact (Gov. Bill 1997/98:90, Committee Report 1997/98:JoU25, Parl. Comm. 1997/98:279). This will clarify how the basic

provisions on environmental considerations in the Environment Code affect a large number of sectors. Environmental courts will be established in January, 1999. In the last year the Government has also set up a new agency, the Economic Crimes Bureau. The Bureau will also have a central role when it comes to investigating environmental crime. In the autumn of 1998 the Government intends to present a national strategy for combating environmental crime.

Work has commenced on identification and presentation of ecological sustainability measures in connection with the government budget. A systematic review of all budget items shows that the majority of items are relevant to ecological sustainability. However, the connection may sometimes be indirect and difficult to establish. The table below shows a selection of budget items that are more or less directly related to ecological sustainability. A condition for ensuring that ecological sustainability measures can be properly monitored in the budget process is that the primary objectives of ecological sustainability – protection of the environment, efficient use of resources and sustainable supplies – are formulated at a more operational level in various sectors.

Section 7 of the Government Agencies and Institutes Ordinance (1995:1322) has been amended so as to give all the directors of government agencies general responsibility, starting on January 1, 1998, for meeting the requirements with regard to ecologically sustainable development that apply to their functions. In August, 1998, moreover, the Government decided to assign special sectoral responsibility for the ecological sustainability process to 24 of these agencies, as announced in the Environmental Bill. This means that the agencies must integrate environmental considerations and resource management into their activities and seek to promote efforts to achieve ecological sustainability throughout the sector for which they are responsible. Their responsibility extends, therefore, not only to basic environmental protection, but also to the three primary objectives of ecologically sustainable development. Where it appears relevant, the agencies are to ensure that decisions and measures of various kinds contribute to the achievement of the goals adopted for environmental policy and ecological sustainability. As far as possible, and depending on the agency's area of responsibility, account is also to be taken of the need for sustainable economic, social and cultural development.

The 24 agencies to which special responsibility has been assigned are the Swedish Armed Forces, the Swedish Rescue Services Agency, the National Board of Health and Welfare, the National Rail Administration, the National Road Administration, the Swedish Maritime Administration, the Civil Aviation Administration, the National Agency for Education, the Swedish Board of Agriculture, the National Board of Fisheries, the Swedish National Labour Market Administration, the National Board of Occupational Safety and Health, the National Heritage Board, the Swedish National Board for Industrial and Technical Development, the Geological Survey of Sweden, the National Board of Forestry, the National Board of Trade, the Swedish National Energy Administration, the National Board of Housing, Building and Planning, the Swedish Consumer Agency, the National Chemicals Inspectorate and the Swedish Environmental Protection Agency. The sectoral agencies are to submit an initial situation report to the Government

by October 1, 1999, in which they define these agencies' perception of their roles, the extent of the tasks, possible problems and ways and means of integrating ecological sustainability into the agency's operations. The Environmental Bill states that the agencies with sectoral responsibility will report to the Government on their progress in their annual reports.

Specific measures related to sustainable development (excluding infrastructure projects etc.)

Programme	Amount (SEK billion)	Comment
Local investment programmes	5.4	For 1998–2000. A further SEK 2 billion was announced for 2001 in the 1998 Spring Economic Bill.
Ecocycle Billion	1	Programme period: 1997–2001.
Energy policy programme	9.2	SEK 9.2 billion for the whole programme period 1997–2004. SEK 4.7 billion has been allocated for the period 1998–2000.
Agri-environmental programme (UO 23)	12	SEK 2.8 billion for 1998, 1999 and 2000. EU cofinancing totals 50 %. SEK 2.1 billion has been allocated for 1997 and SEK 1.5 billion for 1996.
Total	27.6	

3.2 The Government's investment programme – effects on employment

The 1998 Budget Bill (Gov. Bill 1997/98:1, expenditure area 18, Committee Report 1997/98:BoU1, Parl. Comm. 1997/98:81), which was passed by Parliament, proposed allocating funds to support local investment programmes for the implementation of ecological sustainability. Support will be provided for local investment programmes for two reasons. First, because such support should help to substantially increase the pace of Sweden's adjustment to an ecologically sustainable society; second, such support should increase employment. Following the Parliamentary Resolution, MSEK 5,400 has been allocated for the period 1998-2000. In the 1998 Spring Economic Bill (Gov. Bill 1997/98:150) the Government stated that the work of turning Sweden into an ecologically sustainable society should continue and proposed an additional allocation to the support for local investment programmes of MSEK 2,000 for the year 2001.

This support will enable municipalities, in cooperation with local enterprises and organizations, to apply for grants for investments that will

enhance ecological sustainability. In the first round of decisions on grants for local investment programmes for the period 1998-2000 the Government allocated grants to 42 municipalities. In several cases municipalities are collaborating on measures relating to common environmental problems. The grants allocated so far total over MSEK 2,300. The investors to whom these funds have been allocated will contribute about MSEK 5,500 out of their own resources. Thus, the total investments directly related to environmental measures amount to about MSEK 7,800. According to estimates made by the municipalities concerned, the investments should create a total of more than 8,800 jobs on an annual basis (excluding possible displacement effects). These investments are also likely to increase demand for environmentally sound products and services, which should create further jobs in the enterprises that supply them.

Other investment programmes have been launched for the purpose of increasing the pace at which Sweden adapts to an ecologically sustainable society, for example the energy programme whose aim is to achieve more efficient use of energy. The funds allocated under this programme, which was adopted by Parliament in the spring of 1997, will amount to MSEK 9,000 during a seven-year period. Furthermore, a five-year programme was adopted in 1996 involving investment grants totalling MSEK 1,000 for adaptation of construction and technical infrastructure (the 'Ecocycle Billion'). Investments in infrastructure should also be mentioned in this connection; for example MSEK 36,000 has been allocated for the national main-line plan, whose purpose is to improve the mobility of rail transport, for the period 1998-2007.

Investments leading to an early enhancement of skills and advanced product development should assure advantages in the growing world markets for environmental and energy technology, as well as in other product and service markets where there is a demand for ecologically sustainable products. This will also favour employment.

3.3 The economy, industry and consumers

The strategy of pioneering a combination of ecologically sustainable development and economic growth brings great demands on economic policy and assigns a key role to industry. An important condition for success is that industry recognizes the commercial advantages of early adjustment and that fiscal incentives are designed in such a way as to encourage the development of products with an environmental and resource-efficient profile.

Furthermore, it is necessary to promote market demand for environmentally sound and resource-efficient products, for example by raising consumers' awareness and ensuring that public procurement meets stringent environmental criteria. Encouraging and enabling households to assume greater responsibility for the environment and resource management is very important. Rough estimates made by the Swedish Environmental Protection Agency and other agencies indicate that households account for almost half of all environmentally harmful emissions in Sweden.

Adjusting production

A prerequisite for an ecologically sustainable Sweden is environmentally sound production. Industry has made good progress in its environmental efforts, a process that has been stimulated by the environmental legislation, which has become more stringent over the years, but also by an increasingly environment-oriented market. Many enterprises have realized the need for and the advantages of ecologically sustainable operations.

It has become increasingly important to avoid substances and materials that have a major adverse environmental impact and to use resources more efficiently in order to prevent environmental problems. In its bill *Environmental Accounting and Environmental Information in Industry* (Gov. Bill 1996/97:167) the Government has presented examples of what ecologically sound production involves. Such production does not, for example, use ozone-depleting or bioaccumulable and persistent substances, it saves raw materials and energy during both production, transport and use, it prioritizes renewable raw materials and sources of energy and it recycles materials. Ecologically sustainable development also involves the use of new and more efficient processes and technologies.

The Government intends to continue its dialogue with industry with a view to encouraging the use of processes that lead to more efficient use of resources and ecologically sound processes. The Government has presented several bills whose overall effect is to create a platform for the adjustment of industry to ecological sustainability. The intention is to support industry's environmental efforts by various measures that will encourage enterprises to meet more stringent standards than those required by law, thus enabling them to require subcontractors and others to meet strict environmental criteria, and will create more equal competitive conditions by obliging all enterprises to fulfil basic requirements.

The Environmental Advisory Council has been instructed to contribute to the elaboration of strategies for the development of ecologically sound production through a dialogue with industry (Dir. 1998:65). The aim of this assignment is to initiate, support and influence developments in industry and to obtain data for political decisions on guidelines and incentives in environmental policy and other matters of strategic significance to sustainable development. It will report to the Government in 2000.

In *Sustainable Fisheries and Agriculture* (Gov. Bill 1997/98:2, Committee Report 1997/98:JoU9, Parl. Comm. 1997/98:116) the Government presents assessments and proposals for measures to achieve ecologically sustainable agriculture and fisheries. Ecologically sustainable agriculture conserves resources, promotes a healthy environment and is ethically acceptable. Useful means towards this end are information, education and research, pilot and development projects, taxes and charges, and various types of premiums. The sector's commitment to the environment is likely to stimulate development. More stringent consumer demands are another significant driving force. The budget for premiums to farmers within the framework of the agri-environmental programme has been increased by MSEK 700 from the beginning of this year. This means that the total cash limit of MSEK 2,800 per year which Sweden was granted in the pre-accession negotiations will be used up.

The Government presented its energy policy to Parliament in the Bill *Sustainable Energy Supplies* (Gov. Bill 1996/97:84, Committee Report 1996/97:NU12, Parl. Comm. 1996/97:272). Adjustment to sustainable energy supplies involves, among other things, the replacement of nuclear power by more efficient use of electricity, adjustment to renewable sources of energy and an environmentally acceptable technology for the generation of electricity. A new energy policy programme has been adopted, the purpose of which is to substantially increase the production of electricity and heat from renewable sources during the next 10-15 years and to develop commercially profitable technologies for efficient energy utilization (see also section 3.4). The electricity-intensive industries' need of electricity at internationally competitive prices will be assured. Electrical energy for heating will largely be replaced by other energy. The use of electrical energy itself will be made more efficient as a step towards achieving the goal of efficient use of energy and other natural resources.

In 1997, nationally financed establishment grants were introduced for the plantation of forest on cropland for energy purposes. The energy plantation helps to reduce greenhouse gases both by increasing the availability of renewable energy and by fixing carbon dioxide during the growing season. In order to stimulate farmers' interest in energy plantation still further, the Government proposed in the Environmental Bill that funds from expenditure area 23 could also be used for other measures, apart from establishment grants, that are designed to promote energy plantations.

Changes in demand and households' participation

Market demand controls industrial production. This applies also to ecologically sustainable development. One objective of consumer policy is "to ensure that consumption and production patterns develop in such a way as to reduce environmental pressure and contribute to sustainable development". Consumers could take environmental aspects into account not only when purchasing goods and services, but also in connection with the use of products, waste disposal and home maintenance, cooking etc. In the Communication *Consumers and the Environment* (Comm. 1997/98:67) the Government describes its approach to the key issues involved in the environmental objective of consumer policy. An action plan has been presented for this purpose. The action plan covers improved product information, product testing, monitoring of the use of environmental and energy arguments in marketing, and measures that will increase individual consumers' opportunities for demanding ecologically sustainable products and services. Furthermore, it was proposed in the 1998 Spring Economic Bill that funds be allocated to the Swedish Consumer Agency to enable it to create a database containing household-related environmental information that can be accessed by the public and by information officers. The Swedish Consumer Agency has been instructed to set up this database in 1998.

Public procurement departments purchase goods and services to the tune of about MSEK 300,000 per year. Since central and local government procurement often involves large quantities and long-term supplies, it influences enterprises' technological development. Consequently, public procurement could represent a driving force in the development of environmentally sound and resource-efficient products and processes. In

order to stimulate such development, the Government set up a Commission for Ecologically Sustainable Procurement earlier this year in order to promote the consideration of environmental aspects in public procurement (Dir. 1998:8). The Commission's tasks include encouraging ecologically sustainable procurement by central and local government, analysing and monitoring compliance with legislation and international agreements, initiating and developing guidelines and methods, disseminating information, experience and examples of excellence, initiating education and seminars for procurement officers and suppliers, and keeping track of the efforts being made in other countries to achieve ecologically sustainable procurement. The Commission will focus on strategically important products and services, since this is where demands for ecologically sustainable production make the greatest impact. An initial survey indicates that the products which the public sector considers most important in this respect are office equipment and paper, IT equipment, cleaning equipment and food.

The Commission on Environmental Technology, which was appointed in January, 1997, was assigned the task of stimulating the development and facilitating the procurement and introduction of environmentally sound products, processes and technologies designed to be compatible with ecologically sustainable development (SFS 1997:40). The measures taken by the Commission will increase the competitiveness of Swedish industry and thus create new employment. One of the Commission's main tasks is to find methods of facilitating and accelerating the marketing of new environmentally sound technology and testing these methods. The Commission therefore focuses on the demand side. Much of its work is devoted to formulating, together with users of various products and technologies, the functional requirements that should be met by environmentally sound products. It also analyses the potential environmental gains.

Environmental certification of enterprises in accordance with the environmental management systems EMAS or ISO 14001 may influence market demand for ecologically sustainable products and processes, since large companies will then have to require their subcontractors to meet stringent criteria. This may sometimes impose a heavy burden on these subcontractors, which are often small and medium-sized enterprises (SMEs). It is important to pay heed to the needs of these enterprises and their ability to make the necessary adjustments in this process. Part of the funds available for development of SMEs are being used to give economic assistance to such enterprises for the introduction of environmental management systems. The Government intends, in cooperation with the competent EU bodies, to try to influence the design of these certification systems so that they will include efficient use of energy and other natural resources ('sustainability certification').

Fiscal incentives

In its 1997 Communication on ecological sustainability the Government declared its intention to gradually increase the effects of the tax system on the environment. The Tax Switching Committee has investigated the possibility of gearing the tax system more to the needs of the environment. The Government is currently investigating transport and energy taxation. The

Transport Taxation Committee, which was assigned the task of investigating this issue, has submitted an interim report, *Vehicles, the Environment and Safety* (SOU 1997:126). Additional terms of reference have been issued to the Committee and the term of the inquiry has been extended to October, 1998. A review of energy taxation is in progress and is to be completed by the end of 1998. The Government intends to submit a bill on waste taxes to Parliament. Before the bill is presented, the proposed waste taxes will have to be approved by the European Commission. The Commission was notified of the proposal in the spring of 1998. Legislation on waste taxes is expected to enter into force on July 1, 1999.

The Swedish National Audit Office has performed a study commissioned by the Government on the effects of subsidies on ecologically sustainable development (RRV report 1998:6). The study deals with three subsidies, i.e. the transport grant, the aid for peat combustion and the aid for small-scale hydropower. In its report on this study the Swedish National Audit Office discusses how the three subsidies can be improved in order to be more consistent with the need for sustainable development. The Government considers it important that the subsidies should not prevent ecologically sustainable development.

In the Environmental Bill the Government proposed that the Swedish Environmental Protection Agency, in consultation with the competent authorities, should investigate whether the existing incentives in a couple of strategic areas of environmental policy contribute to cost-effective achievement of environmental quality goals. In September, 1998 preliminary instructions were issued to the Swedish Environmental Protection Agency. The Agency is to report on its findings by the end of October, 1998, after which the Government intends to issue a decision instructing the Agency to study incentives in greater detail.

International aspects

By comparison with other countries, Swedish industry is well to the fore when it comes to developing technologies and products that will contribute to adjustment to ecological sustainability. Sweden is thus well-placed to influence international developments in this field by disseminating innovative techniques and setting a good example. If well-organized cooperation on ecological adjustment can be established in the country as a whole, it should be possible to speed up and broaden the process. The Government will soon be considering the proposals presented by a special investigator who was appointed to examine the possibility of and obstacles to increased exports of services and products in the environmental sector and to prepare an integrated strategy to promote such exports.

3.4 Research and technological development

Scientific and technological developments are opening up new possibilities when it comes to achieving adjustment to an ecologically sustainable society. All disciplines, from natural sciences to engineering, from social sciences to the arts, can make a contribution to the adjustment process. Globally, rapid technological advances play a vital role for ecological sustainability, or may

do so in the future. New technologies, for example in the field of more efficient use of energy and other resources and treatment and recycling technologies, are crucial for progress towards greater ecological sustainability. Knowledge about organization, behaviour and values also plays an important part.

Research on the environment and sustainable development

The Government has instructed the Council for Planning and Coordination of Research to develop and concretize the Swedish programme for research in support of sustainable development. It will submit its report in November, 1998, and this report will provide background material for the next Government bill on research. In August, 1998, the Government instructed the Council for Planning and Coordination of Research to investigate current resources for research on hazardous substances. The Council is to submit its report by December 15, 1998. Sweden is also endeavouring to ensure that environmental research and support for sustainable development are given high priority in the EU's Fifth Framework Programme for Research.

In the 1998 Spring Economic Bill the Government proposed higher appropriations for research on matters related to the environment. As regards expenditure area 20, General Environment and Nature, more funds will be needed in order to maintain and further develop basic expertise with respect to pollutants and the development of indicator systems. The Bill proposed increasing the appropriation for environmental monitoring during the period 1999-2001 by MSEK 25 to a total of MSEK 97.

Access to geographical data is an asset in the development of monitoring systems for ecologically sustainable development. In the 1998 Spring Economic Bill the Government proposed funds for the purpose of stimulating wider use of geographical data and information systems in the public sector.

The Environmental Advisory Council was instructed to study the possibility of setting up a research centre for ecologically sustainable development. In September, 1998, the Government adopted the Council's proposal that such a centre be established. The centre will be located in Umeå and will have the task, as an independent authority, of supporting research on ecologically sustainable development. The centre will encourage contacts between practitioners and researchers and act as a link between these two groups in order to facilitate access to research findings for practitioners and bring topical issues to the attention of researchers. One important task will be to assist municipalities with the formulation and implementation of local investment programmes and to disseminate the experience acquired in the course of implementation. The centre will open on January 1, 1999.

Energy technologies

MSEK 9,000 has been allocated to the energy policy programme that was launched in 1997. The main focus of the programme is large-scale, long-term support for research, development and the demonstration of new energy technologies. The objective is to develop, within the next 10-15 years, commercially profitable technologies for the generation of electricity and heat from renewable sources and for more efficient energy use. The Swedish

National Energy Administration, which was established on January 1, 1998, is responsible for implementation of most of the programme.

The main part of the energy policy programme entered into force on January 1, 1998. Prior to implementation of the programme, government assistance was given for many years for the demonstration of new energy technologies. In 1997, a biofuel-based cogeneration plant was opened in Skellefteå. The plant includes a pellet factory for biofuels, which is expected to increase the competitiveness of this technology. A pilot project involving black liquor gasification has been launched in Piteå. These projects are part of the programme set up within the framework of the 1991 Energy Policy Agreement for the purpose of developing new technologies for the production of electricity with biofuels. In the 1999 Budget Bill the Government will submit a comprehensive report on the results that have been achieved so far as a result of the energy programmes.

About MSEK 600, i.e. a quarter of the total funding for 1998, has so far been allocated within the framework of local investment programmes for measures that are designed to promote more efficient use of energy and to reduce its impact on the environment. A large number of measures involve the replacement of fossil fuels or direct electric heating by various types of biofuels, usually wood chips. Many projects also involve connection to or development of district heating systems, usually combined with the introduction of biofuels. Many municipalities are also developing biogas. Many measures involve increased digestion, e.g. of sludge from treatment plants, food wastes from households and the food production industry and manure and crops from agriculture. Both large- and small-scale facilities will be built, as well as distribution systems and equipment for the processing of the gas that is produced into motor fuel.

Transport and construction research

In the Transport Policy Resolution (Gov. Bill 1997/98:56, Committee Report 1997/98:TU10, Parl. Comm. 1997/98:266) the Government declared sustainable development one of the three priority areas of strategic transport research. Environmentally sound transport and fuels are among the areas that have the highest priority in applied transport research. The Resolution increased the appropriation to the Communication Research Committee by MSEK 20, starting in 1999, in order to enable research on and system demonstrations of environmentally sound transport.

One objective of the Government's investment in research in the planning, construction and housing sector is to promote ecologically sustainable development in community planning and construction. It is the task of the Council for Building Research to promote such research. The Council also has the task of urging closer European cooperation on construction research and the initiation of Swedish research projects cofinanced by the EU. The report *New Planning, Construction and Housing Research* (SOU 1997:182) proposed that construction research should concentrate on certain priority areas such as efficient use of resources and ecocycle-compatible construction and housing.

Technology procurement as a catalyst for the development of new technology

Technology procurement represents an important bridge between R&D and full-scale application of new knowledge. The continuity of the process from technology procurement to the market is important. The procurement of energy-efficient technology by the Swedish National Board for Industrial and Technical Development (NUTEK) has demonstrated how market power and continuity can be achieved in sectors with many small customers.

The Environmental Technology Commission uses technology procurement as one of several mechanisms for encouraging the development of new technology. The environment and environmental technology are relevant to almost all sectors (environment, education, industrial policy etc.). The amount allocated for this purpose - MSEK 41 - is not sufficient for large-scale investment projects. In order to derive the maximum benefit from the invested resources, the focus has been on elaborating methods of encouraging technological development in four priority areas: transport, construction and housing, food and agriculture, and soil decontamination. The projects launched by the Commission in 1997 and 1998 include the following: competitions whose object is to demonstrate and verify successful decontamination techniques or techniques for ecologically sound private sewerage systems, a national competition for the purpose of producing marketable 'green' innovations and product ideas, requirement specifications for greases etc., procurement of fuel-flexible small cars, documentation of and information on technologies for the disposal of PCBs in buildings, documentation of environmentally sound alternatives in ecologically sustainable buildings etc. In the 1998 Spring Economic Bill the Government proposed an additional allocation of MSEK 20 to the Commission from the Ecocycle Bill. During the remainder of 1998 and in 1999 the Commission intends to continue its work on the above priority areas.

The Commission on Construction Costs (Dir. 1996:38) was assigned the task of finding, in cooperation with the construction sector, ways of permanently reducing the production and management costs of housing. In its efforts to promote innovation, the Commission has awarded contracts for new construction systems which can achieve substantial cost reductions even for moderate production volumes. The tender procedure resulted in the submission of about 70 proposals. After examining the tenders the Commission selected four proposals which appeared particularly promising. They represent examples of new technologies for frame and wall systems of concrete, steel and wood. A prototype building is being built in Gävle, and two more prototypes will be built later.

3.5 Social welfare – environment and health, education, culture

Adjustment to ecological sustainability must be based on commitment and knowledge. Conversely, ecologically sustainable development is essential for significant aspects of social welfare such as good health and a good living environment.

Environment and health

Protection of the environment is one of the three primary objectives of ecologically sustainable development. The Government's overall environment policy objective is to be able to hand over a society to the next generation in which the major environmental problems have been solved. A broad spectrum of measures are described in the Environmental Bill, in which the fifteen proposed environmental quality objectives relate to air quality, groundwater, lakes and watercourses, forests and land, the urban environment etc. (See also section 2.2.1).

The Transport Policy Resolution specifies interim targets for emissions from transport of major pollutants and climate gases, as well as noise. These targets provide for substantial reductions in emissions of nitrogen oxides, sulphur and volatile organic compounds (VOCs) by 2005. In the Transport Policy Bill, the Government announces its intention also to formulate interim targets for the impact of transport on health, nature, the cultural and urban environment and biological diversity, as well as the greening of the transport sector. The Environmental Bill describes the linkages between the proposed targets for the transport sector and the overall national environmental quality objectives.

The Environmental Bill also proposes a sustainable chemicals policy that is designed to protect human health and the environment. The Bill presents several guidelines, and the Government intends to ensure that these guidelines are implemented within the next 10-15 years. Basically, new products that are marketed must not contain persistent and bioaccumulable substances or substances that are carcinogenic, have genetic effects or cause hormonal disturbances. New products should also be free of mercury, lead or cadmium. Furthermore, persistent and bioaccumulable substances should only occur in production processes where enterprises can demonstrate that they are not harmful to health and the environment. The Government intends to appoint a commission of inquiry to study the details of these guidelines.

Within the framework of the Government's pesticide programme for 1997-2001, which was presented in the Bill *Sustainable Fisheries and Agriculture*, a number of measures were proposed with a view to reducing the health and environmental risks of pesticides in agriculture.

The parliamentary committee's work on establishing environmental objectives will include the task of drafting a national action plan to reduce the impact of environmental factors on health.

Education

People can promote the work of adjustment in many roles, as individual citizens, as consumers, as professionals or as members of various organizations. In order to succeed, the process of adjustment to ecological sustainability will require knowledge, ability and the will to change behaviour. The education system, including educational associations, will therefore play an important part in the adjustment process.

The environmental perspective is one of the four perspectives that will be integrated into school education in accordance with the 1994 National Compulsory School Curriculum. The curriculum has been adapted to include pre-schools and day-care centres for school-age children, and objectives relating to the importance of lifestyles for ecologically sustainable

development have also been added. The pre-school curriculum, which enters into force in the autumn of 1998, also emphasizes the need for ecological thinking in pre-school education.

The Government has taken the necessary steps to introduce an 'environmental school' award. This initiative is designed to encourage teaching geared to sustainable development. In September, 1998 the Government adopted an Ordinance that will make it possible for schools to win this award (SKOLFS1998:122). In accordance with the Ordinance, the National Agency for Education can grant this award to pre-schools, state schools, independent schools and boarding schools. For schools to be eligible for the award, the pupils and staff must work together in focusing the teaching and other activities on ecologically sustainable development. The school must also take measures to ensure that all the pupils and staff recognize the importance of a good work environment and adequate health care and physical welfare. Furthermore, the school must meet other criteria with respect to its activities, work environment, health care services and physical environment stipulated by the National Agency for Education for each type of school. The National Agency for Education is one of the agencies that has been assigned special sectoral responsibility for ecologically sustainable development.

Local Agenda 21 programmes, which are being implemented by all municipalities, are largely dependent on the commitment of individuals and interest organizations. In April, 1998 the Government appointed a national coordinator to give further support for local Agenda 21 initiatives and provide a state sector partner for the local Agenda 21 committees. One of the coordinator's tasks will be to disseminate experience of methods used in Agenda 21 programmes.

When municipalities apply for grants from local investment programmes, they must describe their ongoing and future efforts with respect to ecological sustainability. The existence and content of educational programmes is to be reported in their applications. Organizations engaged in popular education, educational associations in particular, will have a key role in the efforts to make Sweden an ecologically sustainable society.

Culture

A sustainable society must be based on wise management of previous investments and of our common cultural heritage. Culture is both the foundation of and an essential condition for a sustainable society. The cultural sector can contribute to ecologically sustainable development through many activities that are related to community development and cultural perspectives.

Cultural heritage values are closely linked to natural assets, and therefore closer cooperation has been established between efforts to protect the natural environment and the cultural environment. The Environmental Bill emphasizes the importance of closer cooperation between bodies in the nature conservation and cultural environment sectors. The Environmental Code includes provisions relating to the natural and cultural environment and introduces a new protection mechanism – 'cultural heritage reserves'. In *Implementing Forestry Policy* (Gov. Bill 1997/98:158), the Government declares that an integrated approach to the natural and cultural heritage

values of forests is essential for the success of the continuing work of preserving and developing the environmental assets of Swedish forests. In August, 1998 the Government assigned special responsibility to the National Heritage Board for the work on the achievement of ecologically sustainable development in the cultural environment sector.

During the last year the Government has designated architecture and design a priority cultural area. The competent authorities and organizations are now engaged in a variety of activities for the purpose of improving the quality of new buildings and other construction works. The Government has also drawn special attention to the cultural heritage values and architectural qualities of the large cities by proposing a three-year programme in this area in the Bill *Development and Justice – an Urban Policy for the 21st Century* (Gov. Bill 1997/98:165).

3.6 Community planning, construction and transport

Ecological sustainability should be an objective in all community planning. The adjustment of society to ecological sustainability will only succeed if buildings, transport systems and other infrastructure meet the environmental criteria and are more resource-efficient than is the case today.

One of the fifteen environmental quality objectives proposed in the Environmental Bill is a good urban environment. This means that urban areas must provide a good, healthy living environment and contribute to improvement of the regional and global environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote wise long-term management of land, water, energy and other natural resources. A good indoor environment must also be promoted.

Community planning

The planning perspective should be extended so as to coordinate ecological, economic and social aspects with urban planning and the management of natural resources. The municipalities, which are mainly responsible for spatial planning, have a key role in the process of adjustment to achieve ecologically sustainable development. Similarly, the regional perspective is important as regards industry, infrastructure and transboundary environmental problems. There is a growing need for coordination and collaboration between the various levels of community planning. Above all, it is important to improve the coordination between municipalities and regions.

In the Environmental Bill the Government proposed that the activities of the spatial planning and the construction sectors should be consistent with national environmental quality goals, together with other national goals. By coordinating community planning across sectoral boundaries central and local government agencies will promote ecologically sustainable development and a good living environment for all. Municipalities and county administrative boards should, in the Government's view, collaborate in defining and implementing, in a coordinated fashion and across sectoral

boundaries, the national environmental quality goals in local and regional community planning.

Construction

The Government has initiated several projects in the construction sector relating, inter alia, to ecocycling, resource-efficiency and an improved indoor environment. In the *Housing Policy Bill* (Gov. Bill 1997/98:119) the Government presented several proposals for ways of achieving sustainable development, including an investment grant for the building and rebuilding of apartment buildings in residential areas. This grant could be used to finance the extra cost of using technologies that reduce the long-term impact on the environment.

In the Bill *Shaping the Future - an Action Plan for Architecture and Design* (Gov. Bill 1997/98:117) the Government emphasized the importance of high-quality architecture and design. High quality and good design tend to increase the life of buildings and maximize the utilization of both economic and natural resources. Funds from the 'Ecocycle Billion' have been allocated to the National Heritage Board for the purpose of preserving traditional building techniques. The reason for this is that buildings constructed with such techniques are often environmentally sound and long-lasting.

About MSEK 800, i.e. 40% of all aid paid out in 1998, has so far been allocated within the framework of local investment programmes for housing and construction measures. Most of these projects concern residential buildings, but public buildings such as schools and hospitals are also involved. Many of the measures implemented in construction and housing projects are relevant to several kinds of environmental problems. Examples of these are environmental criteria in connection with the choice of materials, efficient use of energy and water, and the installation of systems that facilitate pre-separation of waste and composting. Many of the investments are related to the local environment, in particular green spaces. Other construction projects involve the establishment of wetlands and ponds to absorb surface water.

Transport

The main theme of the Transport Policy Resolution is that transport policy must contribute to sustainable development in social, cultural, economic and ecological terms. The design and function of transport systems must be adapted to the need for a sound and healthy environment for all, in which natural and cultural assets are protected. Wise management of land, water, energy and other natural resources must be promoted. The Resolution specifies targets for emissions of major pollutants and climate gases from transport.

The Government considers it possible to achieve these targets, but this will necessitate efforts by many different parties. A combination of incentives will be needed to achieve the adjustment to ecologically sustainable transport systems. More stringent technical specifications will continue to be an important instrument. The Government also concludes that fiscal incentives of various kinds will play an increasingly important part.

National plans for transport infrastructure for the period 1998-2007 were adopted by the Government on June 11, 1998. MSEK 36,000 has been

allocated for the national main-line plan. The main-line plan will make it possible to complete the high-speed train programme and will improve the mobility and efficiency of rail freight transport. MSEK 30,500 has been allocated for the national road maintenance programme, which concentrates on projects designed to improve road safety. The National Rail Administration and the National Road Administration will present annual reports on the implementation of the infrastructure plans. Major current and planned investment projects include the Mälaren Line, the Bothnia Line and the transport systems in Stockholm and Gothenburg. The Svealand Line will be opened this year. The Mälaren Line is nearing completion.

3.7 International cooperation on ecological sustainability

Achieving ecologically sustainable development will require intensified international cooperation, which centres on measures adopted by the 1992 UN Conference on Environment and Development in Rio de Janeiro (UNCED) and implementation of Agenda 21. The strategy of acting as an international driving force and a pioneer in the field of ecologically sustainable development means that Sweden must play an active part in various international fora. On the basis of the experience gained, Sweden intends to use its influence and play a forward-looking role, in particular in the EU, OECD, the UN, in work on international conventions and in development cooperation in our neighbouring region.

The United Nations

Significant efforts are being made within the framework of the UN reform process to achieve a more integrated and systematic management of the environment and sustainable development in all UN operations. For example, the role of the United Nations Environment Programme (UNEP) and the United Nations Centre for Human Settlements (UNCHS) is to be reviewed. The reform proposals include a proposal to transform the UN Trusteeship Council into a body with responsibility for global commons such as the oceans and the atmosphere. Concrete proposals for ways and means of strengthening the UN in the environmental field will be presented by the Secretary-General prior to the 1998 session of the General Assembly. In the Government's view, it is very important to strengthen the UN's activities in this field, and Sweden therefore plays an active part in the preparations for the decisions on reform in this area which will be taken by the General Assembly during the autumn of 1998.

Work is also in progress in the Commission on Sustainable Development (CSD), which meets once a year for the purpose of facilitating implementation of the recommendations of Agenda 21.

The OECD

The OECD has prepared a strategy for intensifying environmental cooperation between its Member States and giving the organization a leading position in the field of sustainable development. The draft strategy received broad support from the Member States at an OECD meeting of ministers of the environment and at the annual council of ministers of finance and trade.

Sweden supports the OECD's work on behalf of sustainable development and considers that the organization is well-placed to contribute with analyses of the integration of economic, social and ecological aspects of sustainable development. Sweden also participates in the OECD's work on developing indicators for the environment and for sustainable development and in its evaluations of various countries' environmental policies.

The European Union

The 1997 EU summit in Amsterdam led to a strengthening of the Union's efforts on behalf of sustainable development and of the principle of integrating environmental considerations into various policy areas. Sweden played a prominent part in this connection. With respect to ecological sustainability the Amsterdam Treaty amends the Treaty Establishing the European Community and the Treaty on European Union in three areas: the introduction of sustainable development as an overall Community objective, the integration of environmental considerations into other policy areas and the relationship between the environment and the single market.

Sweden's objective is that ecologically sustainable development should constitute a significant element of the EU's policies in all relevant areas. It is therefore very important that the treaty amendments that relate to sustainable development and greater integration of environmental considerations into other policy areas should be followed up by concrete political action. Sweden has therefore urged that the various sectors should prepare cost-effective programmes for sustainable development which take into account ecological, economic and social aspects. Sweden has also urged the Member States to agree on precise timetables and well-defined mandates both for the Commission and the Councils of the relevant ministers in order to achieve this objective.

Following a proposal by Sweden, the Luxemburg summit in December, 1997 decided to instruct the Commission to prepare a strategy document for the integration of environmental issues into EU sectors. The main content of the Commission document was adopted at the Cardiff summit in June, 1998. The European Council decided that strategies for integrating environmental and sustainable development aspects are to be elaborated in EU policy areas. This work is to be monitored with the help of indicators in accordance with the guidelines proposed by the Commission in its strategy document. In particular, the transport, energy and agriculture sectors were invited to start work on this task and to report at the next meeting of the European Council in December, 1998.

Europe outside the EU

Within the framework of pan-European environmental cooperation outside the EU, which takes place mainly through the ECE, Sweden argues that the priorities and concrete objectives of this cooperation should be more clearly defined. Sweden's view is that the focus should be on regional and sub-regional environmental cooperation and on the states of the former Soviet Union, the Baltic Sea region and the Barents Euro-Arctic region.

Furthermore, environmental programmes in Central and Eastern Europe, including Russia, have high priority within the framework of the development cooperation assistance delivered by the Swedish International Development

Cooperation Agency (Sida) and the Swedish Environmental Protection Agency. Preparations are being made to assist central and regional environmental departments and to provide expertise and assistance with institution-building, the elaboration of national environmental strategies and investments in water and sewage treatment and the energy sector.

The Baltic Sea region

Sweden is committed to sustainable development in the Baltic Sea region. At their meeting in Visby in May, 1996 the prime ministers of the states in the Baltic Sea region and the European Commission agreed that sustainable development should be the basis for continuing cooperation in the region. In the same year it was decided to develop an Agenda 21 programme for the Baltic Sea region for the purpose of implementing this objective. In June, 1998 the foreign ministers in the Council of the Baltic Sea States and the EU adopted Baltic 21 – an Agenda 21 for the Baltic Sea region. This includes objectives and scenarios for sustainable development in the region over the next 30 years and an action programme establishing timetables, participants and financing. Baltic 21 focuses on seven sectors (agriculture, energy, fisheries, forestry, industry, tourism and transport) whose development is considered especially important within the context of a sustainable Baltic Sea region. The focus will now be on implementing the action programme. Sweden has taken the responsibility for coordinating implementation of the action programme in the industrial sector. The interim secretariat will be based in Stockholm for two more years.

The ministers of culture in the states in this region decided in September, 1997 to appoint a joint working party in order to develop and strengthen efforts on behalf of the cultural environment in the Baltic Sea region. This will submit proposals in September, 1999 for a strategic action plan for the common cultural heritage of the Baltic Sea region.

Other organizations and measures also play an important part in promoting sustainable development in the Baltic Sea region, e.g. the International Baltic Sea Fishery Commission (IBSFC), the Helsinki Commission (HELCOM) and Vision and Strategies around the Baltic Sea (VASAB), a cooperation structure organized by the ministers who are responsible for spatial planning, all of which take an active part in Baltic 21. Cooperation on the marine environment of the Baltic Sea is being carried on within the framework of the Helsinki Convention. In this framework, the coastal states cooperate on the development of principles relating to all important aspects of the environmental objectives adopted for the Baltic Sea. An action programme was adopted by the Helsinki Commission in 1992 which, in addition to environmental measures, also contains significant measures designed to promote the development of ecological sustainability in the whole of the Baltic Sea catchment area. Cooperation in the Barents Euro-Arctic region, for example in the energy sector, makes an important contribution to sustainable development at the sub-regional level. Voluntary organizations such as Union of the Baltic Cities (UBC) also play an important part in this work. Cooperation between the Nordic countries within the framework of the Nordic Council of Ministers, which concentrates on the area in the Nordic countries' immediate proximity, is also an important factor for sustainable development in the region, particularly the

work on sustainable development that is being carried out this year under the Swedish presidency.

Cooperation on the North Sea, the Arctic and the Barents Euro-Arctic region

Significant progress is also being made when it comes to improving the environmental situation in the North Sea. Sweden plays an active part in these efforts within the framework of several international agreements and conventions whose aim is to reduce marine pollution in the area. Monitoring compliance with the Esbjerg Declaration within the framework of the North Sea Conference is especially important.

Cooperation on the environment also takes place between the Arctic countries and the countries around the Barents Sea. Sweden is committed to prioritization and integration of environmental issues into the agenda of the Arctic Council, which was established in 1996, and better coordination between cooperation on the Arctic, cooperation on the Barents Sea region and Baltic 21. Sweden also considers it important to strengthen the EU's contribution to cooperation in the Barents Euro-Arctic region.

The Nordic countries

In 1998 Sweden holds the presidency of the Nordic Council of Ministers. One of two general themes adopted by Sweden is to initiate the work of transforming the Nordic countries and the neighbouring region into an ecologically sustainable region. The Nordic countries are united in broad popular support for preservation of nature and the environment, and there is a political consensus on the ambition, both at national and EU level and in other international fora, to make a positive contribution on the environment. This should help to pave the way for policies that are geared to ecological, economic and employment objectives.

4 Implemented and new measures to promote ecologically sustainable development in the ministries' areas of responsibility

The Government's policy on adapting to ecological sustainability is based on the action programme described in the Government Communication *Ecological Sustainability* (Comm. 1997/98:13). This programme contains a large number of measures distributed among the thirteen ministries in the Government Offices. Some of these measures have been implemented during the year. Many measures are of a more long-term nature, however, and will take several years to implement. New proposals have also been presented during the year in bills and communications relating to ecologically sustainable development.

This chapter describes the progress made by the ministries on the action programme for 1997. The point of departure for this work was the objectives presented in last year's Communication on ecological sustainability, most of which were formulated in the summaries for each ministry. However, many measures are of a horizontal nature and relate to the activities of several ministries. In these cases, they are reported in the section on the Ministry that is mainly responsible for implementing or coordinating each measure.

The measures referred to in the 1997 Communication are in this year's Communication numbered 97:1, 97:2 etc. The measures which were proposed in the course of 1998 are numbered according to 98:1, 98:2 etc. Unless otherwise stated, the measures will be financed via the budgets of the respective ministry.

4.1 The Ministry of Justice

Environmental crime is a form of economic crime. This definition was established by the Government in its strategy for measures to combat economic crime, which were adopted in April, 1995 (Comm. 1994/95:217).

The Government's strategy includes a broad action programme against economic crime, including environmental crime. The purpose of these measures is to tighten up the legislation, improve the agencies' methods, make cooperation between agencies more effective, enhance the agencies' skills and improve international cooperation. Parliament adopted the strategy in toto (Committee Report 1994/95:JuU25, Parl. Comm. 1994/95:412). Hitherto, the Government has initiated and in several cases completed more than 70 projects within the framework of the strategy against economic crime (cf. Comm. 1996/97:49 and Comm. 1997/98:38). One of the main features of this strategy was to establish a new law enforcement structure designed to prevent and combat economic crime.

Measures implemented and ongoing activities

97:1 Establishment of the Economic Crimes Bureau, a new agency attached to the regional public prosecution offices, for the task of coordinating and intensifying the fight against economic crime

The Economic Crimes Bureau and the Economic Crimes Council were set up on January 1, 1998. The Economic Crimes Bureau is attached to the regional public prosecution offices and is headed by a director-general. Prosecutors, police officers and various specialists work at the Bureau. Apart from its operational tasks, the Economic Crimes Bureau acts as a national staff body for the prevention of economic crime and closely follows and analyses development with respect to economic crime and notifies the Government and Parliament, public authorities and industry when new types of economic crime appear. The Economic Crimes Council is a central coordinating body that is administratively associated with the Economic Crimes Bureau. Important matters relating to the national staff functions of the Bureau, e.g. analysis, monitoring and initiatives for joint agency actions are to be channelled through the Economic Crimes Council. Today, the Bureau does not deal with environmental crime, but a key role is planned for it when it comes to investigating environmental crime too.

Measures proposed in 1998

98:1 Preparation of an integrated proposal for methods of investigating all types of environmental crime

In view of the key role to be assigned to the Economic Crimes Bureau in investigating environmental crime, some demarcation problems must first be solved. The Government has therefore instructed the Office of the Prosecutor-General to draft an integrated proposal for methods of investigating all types of environmental crime. It is to submit a report on this assignment to the Ministry of Justice by December, 1998.

An ad hoc committee at the Ministry of the Environment has proposed that county administrative boards should promote cooperation between the supervisory authorities, the police and the public prosecution authorities when it comes to preventing and combating environmental offences. This responsibility is laid down in the ordinance on supervision of compliance with the Environmental Code. The committee points out that cooperation should be established between the authorities mentioned above and the authority that is responsible for reviewing permits. The ambition should be to ensure, as far as possible, that permits are designed in such a way as to assist and be of practical use to supervisory authorities, public prosecutors and courts when possible offences are investigated.

98:2 Development of a national strategy for combating environmental crime

The Government's strategy for combating economic crime also applies, as mentioned above, to environmental crime. However, attention must be paid in this connection to the special circumstances associated with the struggle against environmental crime. In October, 1998 the Government intends to

present a national strategy for combating environmental crime (cf. Committee Report 1997/98:JuU1).

98:3 Setting up environmental courts

A coordinated and uniform review procedure will be set up for legal review of environmental cases that fall under the new Environmental Code. On January 1, 1999 Svea Court of Appeal will be the supreme environmental court and regional environmental courts will be established in Stockholm City Court and Växjö, Vänerborg, Östersund and Umeå district courts. At the same time, the National Licensing Board for Environment Protection, the water rights courts and the Water Rights Court of Appeal will be closed.

4.2 The Ministry of Foreign Affairs

The Ministry for Foreign Affairs has overall responsibility for foreign policy in the Government Offices, especially as regards UN policy and development cooperation policy. The Ministry's work on ecologically sustainable development focuses on international cooperation in bilateral and multilateral fora. The Ministry coordinates the international follow-up of the UN Conference on Environment and Development and also has special responsibility, inter alia, for the Convention on Desertification and the Global Environmental Fund. The Ministry for Foreign Affairs is also responsible for informing other countries about Swedish efforts to achieve ecologically sustainable development. Sida is one of the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

Measures implemented and ongoing activities

97:1 Consideration of ecological sustainability in analyses and reports

This item relates to the Ministry's country analyses and reports and to other international analyses and reports on the environment. Reports and analyses from the Swedish foreign missions in this area are to be monitored carefully by the Ministry. Its activity planning should ensure that the Ministry can control the scope and focus of reporting.

Following an initiative by Sweden, ecological sustainability has been given a prominent place in the new Regulation on the European Environment Agency (EEA). Sweden will pursue this issue in the future coordination international reports. The implementation of programmes for the integration of sustainable development issues into the EU system calls for the establishment of objectives and indicators, as well as monitoring and evaluation. Efforts to design international sustainability indicators are in progress in several international fora. Sweden also pays an active part in the international work on developing environmental statistics and environmental accounting as sources of data for sustainability analyses and indicators.

97:2 Continued promotion of environmental aspects and sustainable development in bilateral and multilateral development cooperation and in the EU's development cooperation, with special emphasis on the poverty aspects

Efforts are now being made to strengthen the integration of sustainable development into the UN's operations, especially in connection with the Secretary-General's reform of the economic and social sectors. Work is also in progress on the establishment and implementation of Swedish priorities through appropriation instruments; in multilateral and bilateral development cooperation this is done through country and regional strategies, and in the European Commission's policymaking on EU development cooperation in accordance with the guidelines adopted in Government Communication 1996/97:2. Great importance is also attached to promoting sustainable development in the Ministry's strategy for Asia.

97:3 Following up the UN Special Session of the General Assembly (UNGASS)

The UN Commission on Sustainable Development (CSD) meets once a year in order to implement and elaborate the resolutions adopted by the UN Conference on Environment and Development and the 19th special session of the General Assembly in 1997. The Commission's sixth session, which was held at the end of April, 1998, dealt with freshwater and industry and sustainable development.

During this meeting a dialogue was established between governments, popular movements and representatives of industry as regards industry's responsibility. A review will also be conducted of voluntary initiatives concerning sustainable development in industry. Discussions are also under way in the UN on the possibility of integrating sustainable production and consumption patterns into the consumer policy guidelines adopted by the UN.

Sweden has urged that poverty alleviation and education on sustainable development should be key issues in the EU's preparations for this year's CSD meeting. In the autumn of 1998 preparations will start for the seventh CSD meeting in the spring of 1999, the main focus of which will be sustainable production and consumption patterns, sustainable utilization of the oceans and sustainable tourism.

97:4 Continued active participation in global conventions relating to sustainable development

In 1998, Sweden has taken part in the Conferences of the Parties to the conventions on climate change, biological diversity and desertification, as well as the Basel Convention and the Montreal Protocol.

At the Conference of the Parties to the 1992 Framework Convention on Climate Change in November, 1998, the main items on the agenda will be joint implementation and cooperation with developing countries within the framework of the Clean Development Mechanism, the developing countries' future commitments and tradable emission rights.

From Sweden's point of view, the most important issue in connection with the Montreal Protocol at the moment is effective phasing-out assistance to developing countries, including the benefit of Swedish experience.

Consideration should be given, in particular, to the work of the board of the Multilateral Fund for the Implementation of the Montreal Protocol.

At the Conference of the Parties to the Convention on Biological Diversity in May, 1998 Sweden proposed that work programmes should be prepared for marine and coastal biological diversity, freshwater, forests, agriculture and the traditional knowledge of indigenous peoples. Sweden also proposed that the negotiations on biosafety should be concluded before February, 1999 and that the Global Environmental Fund should constitute a permanent financial mechanism for the Convention. The Convention on Climate Change will also consider the latter issue in 1998.

At the fourth Conference of the Parties to the the Basel Convention in February, 1998 the parties agreed, after protracted negotiations, to maintain the ban on exports of hazardous wastes from OECD countries to non-OECD countries and that no restrictions or extensions should be introduced until the ban enters into force. This issue was pursued by Sweden, together with the other EU Member States and most developing countries.

Sweden has also taken an active part during the year in the negotiations on two conventions relating to chemicals: a convention on Prior Informed Consent in connection with the trade in certain hazardous chemicals, which was signed in Rotterdam on September 11, 1998, and a convention on persistent organic pollutants (POPs), the first negotiation session for which was held in Montreal in June, 1998.

97:5 Support for adequate replenishment of the Global Environmental Fund

The Global Environmental Fund cofinances the incremental costs of development projects in developing countries which may arise due to efforts to achieve global gains. The objective of an adequate replenishment of the Global Environmental Fund was achieved when the donors agreed in March, 1998 on a replenishment of the Global Environmental Fund, which will mean that it will have MUS\$ 2.750 at its disposal for the period 1998-2002. Sweden played an active part in these negotiations, particularly as regards the question of a reasonable burden-sharing among the donors. It is now very important that the recommendations adopted by the Governing Board of the Global Environmental Fund for the next financial period should be followed up.

97:6 Support for integration of environmental considerations and sustainable development into the WTO, inter alia, in the forthcoming negotiations on trade liberalization

Sweden participates in the international discussions on trade and environment, in particular in the WTO's Committee on Trade and Environment (CTE). This Committee is the main forum for discussion of the relationship between trade and environment. The work of the CTE is very significant when it comes to proposing and enforcing any amendments to the trade rules that may be necessary for reasons of sustainable development. Sweden is committed to the integration of the environment and sustainable development into the trade rules so that trade liberalization can further sustainable development.

In order to achieve results in this area, Sweden advocates the integration of environmental issues into the larger-scale negotiations on trade liberalization that are planned for the beginning of the next century. The CTE's work programme includes ten items, and in 1997 the focus was on those that concern the relationship between environmental conventions and trade rules and better market access for developing countries. This work commenced in 1998 with a CTE meeting that was arranged in association with a large NGO conference, at which the WTO's Secretary-General emphasized the importance of interaction between trade, the environment and sustainable development. Two more CTE meetings are planned for this year.

97:7 Support, through development cooperation and other measures, for developing countries' production and exports of environmentally sound products

The Ministry for Foreign Affairs chairs an inter-ministry consultation aimed at promoting interaction between agricultural, environmental, trade and development cooperation policy. Sida was commissioned by the Government to prepare the report *Trade, Environment and Development Cooperation*, which contains proposals as to how trade and development cooperation policy can help to support developing countries' production and exports of environmentally sound products. Improved interaction between the different policy areas will increase the likelihood of effective development cooperation through Sida. Contacts with the Nordic countries and the EU are planned in connection with continuing measures in this area.

97:8 International information on Swedish measures on behalf of ecologically sustainable development

Together with the environmental agencies, the Ministry for Foreign Affairs has special responsibility for informing other countries about Sweden's policy on ecological sustainability. These measures are being intensified. There is also a need of closer coordination between the Government and the agencies when it comes to providing this information. The Government is making a special effort in this area in 1998. One example of this is an international newsletter containing information on Sweden's work in the field of the environment, which is published jointly by the Ministry of the Environment, the Swedish Environmental Protection Agency and the National Chemicals Inspectorate.

Matters relating to the environment and ecological sustainability are also given a high profile in many other contexts. Since joining the EU Sweden has arranged environmental seminars in several EU capitals, with participation from municipalities, county administrative boards and environmental engineering enterprises, as well as the Ministry of the Environment and the Swedish Environmental Protection Agency. The environment also has a prominent place in the fact sheets and other publications issued by the Swedish Institute.

97:9 Inclusion of ecologically sustainable development in activity plans and personnel training in this area

Sustainable development is one of the priority areas in the Ministry's activity planning. On December 12, 1997, the Ministry's political leadership adopted guidelines for the fiscal year 1998. According to these guidelines "The adjustment to ecologically sustainable development is a high-priority Government objective. Efforts in this area are pursued in several ways in public administration, and the Government Offices will introduce environmental management systems in 1998. We have now established a structure to deal with these important matters at the Ministry for Foreign Affairs. The Director-General for International Development Cooperation and Migration has been instructed to chair an advisory group in which the division for global cooperation, the Division for Migration Policy and the Secretariat for Administrative Development will take part. We propose that the group commence its work as soon as possible."

Training is under way. The training of personnel in this area is included in the activity plan for the Ministry's Education And Training Department. The first environmental seminar was arranged in May, 1998. More consideration needs to be given to the organization of seminars and other training activities in this area.

It is stated in the activity plan for property and purchasing and with reference to the Supplies Service that environmental management systems may be introduced in 1998 and may require active participation by the departments concerned. As regards property, it has already been recommended that recyclable and biodegradable products should be given priority in connection with purchases of products and materials. According to the activity plan for the Purchasing Department, environmental aspects are to be taken into account in connection with procurement and purchasing for the Ministry and the foreign missions.

4.3 The Ministry of Defence

In the *Defence Resolution Bill* of autumn 1996 (Gov. Bill 1996/97:4) the Government reported in detail to Parliament on the environmental work that is done by the agencies that are responsible to the Ministry of Defence. The Government concluded that the Swedish armed forces continues to perform its environmental work systematically in accordance with the established guidelines. The Government stated that other agencies have also commenced structured environmental work. Both the National Fortifications Administration, the Defence Matériel Administration and the Defence Research Establishment have formulated an environmental policy for their respective operations.

The Government has also mentioned, in various contexts, the environmental work that is performed by the agencies that are responsible for peacetime rescue services and environmental rescue services at sea. The Swedish Rescue Services Agency has given the environment a prominent place in its operations and, like the Swedish Coast Guard, it also takes an

active part in international cooperation on the prevention and reduction of the impact of chemical accidents and oil spills.

The Swedish Armed Forces and the Swedish Rescue Services Agency are among the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

Measures implemented and ongoing activities

97:1 and 2 Continuation of the dedicated environmental work in the area of responsibility of the Ministry of Defence in accordance with the guidelines previously presented to Parliament. Ensuring that the agencies responsible to the Ministry devote their best efforts to implementing the environmental policy adopted by the Government and Parliament.

The Swedish Armed Forces

In the light of the Parliamentary Resolution on transport infrastructure for the future (Gov. Bill 1996/97:53, Committee Report 1996/97:TU7, Parl. Comm. 1996/97:174) the Government has instructed the Swedish Armed Forces to plan and complete by 2003 the first stage of the action plan against noise caused by military aviation and to present, by November 1, 1998, further anti-noise measures to be implemented during the period 1998-2007. The Government has also instructed the Swedish Armed Forces, with respect to firing noise from artillery and other heavy weapons, to apply the guidelines previously presented by it in a report to the Ministry of Defence.

In its continuing environmental work, the Swedish Armed Forces must integrate not only environmental protection aspects as such, but also aspects relating to the natural and cultural environment. The Swedish Armed Forces must continue to implement its environmental policy. An important element of this concerns environmental education in the organization and continued measures designed to reduce emissions of pollutants due to the use of fossil fuels. Together with the Defence Matériel Administration, the Swedish Armed Forces has presented draft guidelines for environmentally appropriate supplies of equipment. The draft guidelines are currently being reviewed in the Government Offices. The Swedish Armed Forces has also submitted a situation report on the disposal of hazardous residues and dumped ammunition. This work must continue.

The Swedish Armed Forces is progressively introducing an environmental management system. The system is to be introduced throughout the organization by the year 2000.

Environmental work of the ancillary defence agencies

Among the ancillary defence agencies the National Fortifications Administration, the Defence Matériel Administration and the Defence Research Establishment are instructed to attach special importance to environmental work. These authorities, and also the Aeronautical Research Institute, are included in the pilot project involving the introduction of environmental management systems in government administration. The National Fortifications Administration, the Defence Matériel Administration

and the Defence Research Establishment have already established an environmental policy. Work is in progress in these agencies on an environmental inquiry and the drafting of an action plan for continuing environmental work.

The environmental work of the Swedish Rescue Services Agency, the Swedish Coast Guard and the civil defence agencies

The Swedish Rescue Services Agency, the Swedish Coast Guard and the civil defence agencies will continue their active environmental work. Both the Swedish Rescue Services Agency and the Swedish Coast Guard are participating in the pilot project involving the introduction of environmental management systems in government administration. In March, 1998, the Swedish Coast Guard presented a draft environmental policy. The work on an environmental inquiry and the drafting of an action plan for continuing environmental work will continue.

International environmental work relating to military operations

Sweden continues to play an active part in international cooperation on the military environment. Sweden's participation in the NATO Committee on the Challenges of Modern Society (CCMS) continues and develops. Sweden is taking part in five CCMS pilot studies, two of which relate to the environment and safety and environmental management systems in the military sector.

At the meeting in November, 1997, the Nordic ministers of defence established, on Sweden's initiative, an action plan for Nordic cooperation on the military environment at ministerial level. A number of areas of cooperation are identified in the action plan. Some of the methods to be dealt with in the next few years relate to a common Nordic policy on the military environment at ministerial level, common environmental objectives for the defence sector and Nordic aid to the Baltic states, inter alia, on the military environment. Joint discussions between the Nordic countries on the military environment and a joint Nordic policy in pursuing these issues both nationally and internationally will help to improve the common Nordic environment.

At the level of the armed forces the Government has consented to the conclusion of an agreement between the Nordic armed forces on cooperation on the military environment. This cooperation represents a satisfactory complement to cooperation at ministerial level.

In the autumn of 1997, Sweden and the USA started two cooperation projects in the field of cooperation on the military environment in Latvia and Lithuania. The Latvian project aims to establish an environmental plan for an army base, and will hopefully serve as a model for other bases. The Lithuanian project involves the establishment of a regional military environment training centre in Nemencine. The Swedish contribution to both these projects is being financed via the 'Baltic Billion'. These Swedish measures contribute significantly to enhancement of environmental knowledge in the Baltic armed forces. Consequently, they also help to strengthen the democratic foundations of the armed forces in these states, and thus the democratization process in the region as a whole.

In order to further develop cooperation on the military environment, Sweden, together with the USA and Poland, arranged a meeting in Warsaw in June, 1998 within the framework of NATO/CCMS and the Euro-Atlantic Partnership Council (EAPC) on military operations and the environment. The meeting discussed in a single context the environmental guidelines elaborated by Sweden and the USA for the military sector and several NATO/CCMS pilot studies. It also elaborated a programme for development of national military environment plans.

International environmental work on chemical accidents and oil pollution control

For many years now, active international environmental work is being carried out in the field of accident prevention and damage limitation. This includes activities that involve the risk of chemical accidents, but also safety in connection with the transport of hazardous goods. The EU Seveso II Directive on measures to prevent and limit the consequences of serious accidents involving hazardous substances is being implemented. An inquiry was carried out in Sweden in order to investigate what legislation is necessary for Swedish implementation. The proposals presented by the commission of inquiry are now being considered in the Government Offices.

Sweden also takes an active part in the OECD's cooperation on chemical accidents, one purpose of which is to draft guidance documents in order to prevent and limit the consequences of chemical accidents, and to carry out rescue work when they do occur. Sweden also participates in the implementation of the UN/ECE Convention on the Transboundary Effects of Industrial Accidents.

The Ministry of Defence's area of responsibility also includes work on oil and chemical pollution at sea, which takes place within the framework of the Bonn Agreement, the Copenhagen Agreement and the Helsinki Convention. These provide for cooperation on environmental rescue services and the coordination of air surveillance, exchanges of technical information and collaboration on joint projects. Similar cooperation takes place within the framework of the Arctic Council. It concentrates mainly on locating hazardous operations in and around Arctic waters and preventing accidents and incidents. Furthermore, Sweden participates in the environmental work of the International Maritime Organization (IMO) and the EU Advisory Committee for Discharges at Sea.

Measures proposed in 1998

98:1 Tasks related to sectoral responsibility for ecologically sustainable development and sectoral goals and measures related to environmental quality goals

In July, 1998 the Government decided, in accordance with the Environmental Bill, to assign sectoral responsibility for ecologically sustainable development to the Swedish Armed Forces and the Swedish Rescue Services Agency and instructed these agencies to present proposals on sectoral goals and measures. In August, 1998, the Swedish Coast Guard was instructed, together with the Swedish Maritime Administration, to present proposals on

interim targets and measures as regards oil and chemical discharges from ships.

4.4 The Ministry of Health and Social Affairs

The process of adjustment to an ecologically sustainable society must take into account the need to maintain a high level of health protection. The main focus of these efforts in the area of responsibility of the Ministry of Health and Social Affairs is on health and welfare and environmental work in the health and medical services. Maintaining a high level of public health is a good investment for the future and is a key feature of adjustment to an ecologically sustainable society. Various measures designed to close material and resource cycles and to reduce the pressure on the environment must be combined with measures in the field of health and welfare. Conflicts between health and the environment may arise if an integrated approach is not applied to this area.

The process of adjustment to an ecologically sustainable society must therefore be based on the objectives and measures that are considered necessary to ensure a good standard of public health. The National Board of Health and Welfare and the National Social Insurance Board are two of the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

Measures implemented and ongoing activities

97:1 Submission to Parliament during the spring of 1998 of a draft national action plan to reduce the impact of environmental factors on health

For many years Sweden has attached great importance to preventing ill-health by reducing exposure to health risks in the environment. Measures to improve water and sewage treatment, housing hygiene, diet and education, and a generally high standard of living, have made a vital contribution by substantially reducing the incidence of many diseases. However, some problems remain to be solved. Air pollution indoors and outdoors, pollutants and infectious agents in water and food, noise and radon are examples of environmental factors that have an adverse effect on public health in Sweden today.

In its final report *An Environment for Sustainable Health Development* (SOU 1996:124), the Commission on Environmental Health presented a draft national action plan to reduce environmental health risks in Sweden. The report on which the national action plan is based has been circulated for comment. A draft national action plan to reduce the impact of environmental factors on health was to have been submitted to Parliament in the spring of 1998. The action plan was not submitted, however, since it was decided that it should be coordinated with the work on the national environmental quality goals proposed in the Environmental Bill. To some extent, the proposals presented in the action plan to reduce the impact of environmental factors on health are consistent with the measures proposed in the Environmental Bill.

In other respects the plan proposed by the Commission on Environmental Health must be adapted to the new structure for implementation of the environmental quality objectives proposed in the Environmental Bill. Consequently, the results from the Commission on Environmental Health will be an input to the parliamentary committee appointed for the environmental quality objectives (Dir. 1998:45).

As a result of the conclusions of the Commission on Environmental Health the National Board of Health and Welfare was instructed in the appropriation instrument for 1998 to take measures to ensure that local and regional health protection and environmental medicine plans and programmes are prepared. By the end of 1999, 90% of county administrative boards are to have adopted health protection programmes, 90% of the county councils are to have adopted activity plans for their environmental medicine services and 80% of the municipalities are to have adopted local programmes or activity plans that include health protection.

Moreover, the National Board of Health and Welfare has, in accordance with the appropriation instrument for 1998, started planning a national environmental health report which is to be presented by 2001. This is planned to include an update of the scientific data used by the Commission on Environmental Health, an evaluation of the exposure to priority health risks in the environment and of the health problems caused by environmental health risks broken down by disease groups.

97:2 Efforts to bring about international cooperation on health protection and environmental medicine. Special importance is to be attached to cooperation between the countries in the Baltic Sea region.

Continuing well-developed international cooperation on health protection is very important. Sweden is well-placed to act as a driving force on these issues. It has for many years attached great importance to a high level of health protection, and this has had a decisive effect in ensuring a satisfactory state of health among the population. The WHO Programme for the Promotion of Environmental Health is coordinated with the implementation of Agenda 21 and is supported by Sweden, inter alia through voluntary contributions. The WHO's work relates both to the health objectives of Agenda 21 and matters such as environmental medicine, chemical safety, health risks and safety issues in industry, water and sanitation etc.

Environmental health is an important WHO responsibility. At the second meeting of environmental and health ministers in Helsinki in 1994 it was decided that the Member States should draft national plans for the environment and health and that a European Committee on Health and Environment should be set up. Apart from representatives of WHO Member States, the committee also includes representatives of various international organizations such as the WHO, the UN/ECE, UNEP and the European Commission. Coordination of measures in this area is important and, apart from the coordination that takes place via the Committee, the WHO Regional Committee for Europe has concluded an agreement on cooperation with the European Environment Agency in Copenhagen.

The report *An Environment for Sustainable Health Development* (SOU 1996:124) was produced as a result of the Member States' undertakings in Helsinki to draft national plans for environmental health. Today, about half of

the region's 51 Member States have completed or are well on the way to completing their work on the national plans.

At present, the WHO Regional Committee for Europe is preparing the third Conference on Environment and Health, which will take place in London in June, 1999. The planning of this conference has been prepared by the European Committee on Health and Environment. Six themes are currently being prepared for the conference:

1. Transport, environment and health
2. Prevention, reduction and control of water-related diseases
3. Implementation of national environmental health programmes
4. Codetermination, information, participation of the public and interest organizations etc.
5. Environment and health in industry and other workplaces
6. Fiscal incentives in the field of environmental health

Extensive European cooperation on the environment takes place within the EU system. The EU's measures in the public health sector are not as well-developed as its environmental work. Following the Maastricht Treaty, however, the EU was formally granted powers with respect to public health (Article 129), and the Union has subsequently taken several initiatives in this area. In its Communication of November 24, 1993 on a framework for measures in the field of public health (Com(93)559 final) the Commission established a framework for measures at Community level up to 2000 in order to achieve these objectives. In accordance with the criteria set forth in the Commission's Communication, priority is given to diseases caused by environmental pollutants.

The Council of Ministers of Health is currently discussing a proposal by the Commission with respect to a programme for Community measures in 1999-2000 concerning diseases caused by environmental pollutants. A decision on this matter is expected during the autumn of 1998 at the earliest. This programme is also included in the preparations for the forthcoming framework programme on public health which will be implemented between 2000 and 2005.

As regards cooperation on health protection and environmental medicine in our neighbouring region, Sweden takes part in a cooperation group of the Nordic and Baltic countries for the purpose of drafting action plans for environmental health in the Baltic Sea region. In this connection, the countries have defined certain common problem areas, including the implementation of national action plans for environment and health at the local level and the possibility of circulating information to the public and ensuring the participation of the public, enterprises and organizations.

Moreover, EUROHEALTH, a programme for assistance to the countries of Central and Eastern Europe set up by the WHO Regional Committee for Europe, includes environmental health as one of six priority areas.

97:3 Emphasizing the need of measures in the health and medical services with respect to environmental management systems, continuing measures to phase out the use of amalgam in dental care, reduction of the quantities and hazardousness of wastes generated by the health services, and research on environmental medicine and dissemination of the results of such research

The responsibility of the health and medical services for health and the environment consists of:

- statutory responsibility for their own operations pursuant to the Environmental Protection Act, Medical Products Act, Work Environment Act etc.;

- responsibility for the population and private individuals under the Health and Medical Services Act and the Protection Against Infection Act, which cover, among other things, social and environmental medicine, epidemiology and protection against infection.

All the county councils have adopted environmental programmes. These mainly include environmental measures relating to the county councils' own services, e.g. hospitals, community health care centres and dental clinics. The county councils' environmental work was described in a report submitted by the Federation of Swedish county councils in 1997, *The County Councils and the Environment*. The county councils' operational activities are not directly controlled by Parliament and the Government, but the Government wishes to mention some areas where there is a need of further measures.

Environmental management systems

Intensive work on the introduction of environmental management systems is now under way in most county councils. The Federation of Swedish County Councils estimates that most hospital authorities have started introducing environmental management systems, either EMAS or ISO 14001, for various services or will do so soon. Through the Federation of Swedish County Councils several county council departments are taking part in pilot projects to extend the county councils' use of EMAS. One result of this development work is that Halmstad County Hospital is the first hospital in Europe to be EMAS-certified.

Measures to phase out the use of amalgam in dental care

In the *Bill Reform of Subsidies for Dental Care* (Gov. Bill 1997/98:112), which was passed by Parliament, the Government proposes that dental care allowances for amalgam fillings should be abolished from the year 1999 in connection with the plan to phase out the use of such fillings. In both the Dental Care Bill and the Environmental Bill the Government emphasizes the importance of phasing out the use of amalgam in dental care as soon as possible. Provided that the Medical Devices Directive (93/42/EEC) is amended in such a way as to make it possible to ban the use of amalgam, the Government intends to take the necessary measures to impose a ban by the year 2001.

Reduction of the quantities and hazardousness of wastes generated by the health services

The Federation of Swedish County Councils produced reports for the years 1995 and 1996 – *Environmental Statistics for Hospitals* – covering the country's 90 or so hospitals with emergency facilities. The publication of a third report for 1997 is planned for December, 1998. One of the purposes of the statistics supplied in these reports is to provide the hospitals with tools – ratios – to help them evaluate and improve their environmental work, for example as regards wastes.

The preliminary results for 1997 indicate that the quantities of hazardous wastes have increased. According to the Federation of Swedish County Councils, this increase may be due to the fact that hospitals have tightened up their control over wastes and that the figures reported are therefore now more accurate. As regards high-risk wastes, the hospitals with emergency facilities have reduced quantities by over 8 kg per bed during the three years for which the Federation of Swedish County Councils has produced environmental statistics. Progress varies greatly between comparable hospitals, however.

In order to reduce the quantity of hazardous wastes generated by the health services, funds have been allocated to the county councils via a waste project included in the investment programme for ecological sustainability.

Improved dissemination of the results of research on environmental medicine

In the appropriation instrument for 1998 the Government instructed the National Board of Health and Welfare to arrange for an investigation of research on environmental medicine and dissemination of the results of such research and of cooperation arrangements in the field of environmental medicine. By the end of 1999 all county councils are to submit proposals explaining how the dissemination of research results will be organized and how cooperation is to be arranged between the local, county and regional levels in the field of environmental medicine.

Measures proposed in 1998

98:1 Assignment to the National Board of Health and Welfare and the National Social Insurance Board on interim targets and sectoral goals within the framework of environmental policy

In connection with the Environmental Bill the Government instructed the National Board of Health and Welfare to carry out a comprehensive review of the health-related targets and measures that need to be established in order to achieve the proposed environmental quality objectives, in particular a good urban environment and a non-toxic environment, within a generation. It is to carry out this assignment in cooperation with the Swedish Environmental Protection Agency and the parliamentary committee appointed for the task of establishing environmental objectives.

In addition, the National Board of Health and Welfare has been instructed, in close cooperation with the Swedish Environmental Protection Agency and various organizations, enterprises and public authorities, to specify the

environmental quality goals in greater detail by formulating sectoral targets and continuously monitoring and evaluating achievement of these targets in the sector for which the Board is responsible, taking into account the division of responsibilities as regards health and the environment between the agencies concerned. The Government intends to assign a similar task to the National Social Insurance Board.

98:2 Completion of the drafting of national public health goals

Although the general development of public health in Sweden has been satisfactory, serious diseases and injuries that could be prevented still occur. For example, the differences in health between certain social groups, between geographical areas and between men and women is on the increase. In December, 1995 the Government issued terms of reference to a parliamentary committee (Dir. 1995:158) and instructed it to prepare a proposal for national goals for the development of public health in Sweden. These goals are to serve as a guide for the measures taken to promote public health, prevent ill-health, reduce health risks and prevent premature and avoidable functional impairments. The committee is also to submit proposals on strategies for achieving these goals and ensure that they command general support on the basis of decision-making and development processes. Adjustment to ecologically sustainable development is one activity in which support should be assured for these goals.

In its interim report *How to Improve Sweden's Health – the First Step towards National Public Health Goals* (SOU 1998:43) the National Committee on Public Health specifies some of the factors in the general development of welfare and society that are of strategic importance for the achievement of good health standards among all social groups. Some of the areas on which the Committee has concentrated, in particular allergies, housing and the local environment, are important elements of the process of adjustment to ecologically sustainable development. The Committee intends to focus on measures taken in pre-schools and schools in order to prevent the complaints from which children with allergies suffer and to prevent children from developing allergies, as well as identifying the necessary conditions for a good living environment in residential areas in terms of the indoor environment, air pollutants, noise, and green spaces and recreation areas. The Committee on National Public Health Goals is to complete its assignment by October 31, 2000.

98:3 Improvement of the indoor environment in premises used by children

The Government's Communication to Parliament on progress on general matters relating to children (Comm.1997/98:79) states that the National Board of Housing, Building and Planning and the National Institute of Public Health will jointly be assigned the task of investigating ways of improving the indoor environment in premises used by children.

4.5 The Ministry of Transport and Communications

The overall objective as regards the area of responsibility of the Ministry of Transport and Communications, which was presented in last year's Communication on ecological sustainability, is to promote the development of a sustainable transport system. In June, 1998 Parliament passed a resolution on the direction of future transport policy, which was based on the proposals set forth in the Transport Policy Bill *A Transport Policy for Sustainable Development* (Gov. Bill 1997/98:56, Committee Report 1997/98:TU10, Parl. Comm. 1997/98:266). Transport policy is to contribute to sustainable development in social, cultural, economic and ecological terms. Consequently, this resolution is an important starting-point for Sweden's adjustment to ecologically sustainable development. One of the goals of transport policy is a sound environment. This means that the design and function of the transport system must be adapted to the needs of a sound and healthy living environment for all, in which the natural and cultural environment is protected against damage. Wise long-term management of land, water, energy and other natural resources must be promoted. The National Road Administration, the Civil Aviation Administration, the Swedish Maritime Administration and the National Rail Administration are among the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

Measures implemented and ongoing activities

97:1 Formulating environmental goals for the transport sector

The Transport Policy Resolution sets the following targets for emissions of air pollutants and climate gases in the transport sector:

- emissions of carbon dioxide from the transport sector in Sweden should be stabilized at the 1990 baseline level by 2010;
- emissions of nitrogen oxides from transport should be reduced by at least 40 % in relation to the 1995 baseline level by 2005;
- emissions of sulphur from transport should be reduced by at least 15 % in relation to the 1995 baseline level by 2005;
- emissions of VOCs from transport should be reduced by at least 60 % in relation to the 1995 baseline level by 2005.

As regards noise, the Government states that the targets for traffic noise previously adopted by Parliament should remain in force.

The Government also considers it necessary to establish interim targets as regards ecologically sustainable development in the transport sector and the effects of traffic on health, natural, cultural and urban environments, and biological diversity.

The Environmental Bill links the proposed targets for the transport sector to the general national environmental quality goals. The need to refine the environmental goals for the transport sector in all the abovementioned areas is also emphasized. The Government has therefore instructed the Swedish Institute for Transport and Communications Analysis, together with the competent authorities, to develop measures and methods with a view to establishing step-by-step targets for the interim goals of transport policy

proposed in the Transport Policy Bill and the Environmental Bill. The Government also intends to commission appropriate bodies to formulate action strategies and assess the economic and financial effects of the measures. A review of efforts to achieve environmental goals in the transport sector will be carried out by the parliamentary committee that is proposed in the Environmental Bill.

97:2 Investment in transport infrastructure with a view to minimizing noise, intrusion and safety risks. In addition, MSEK 8,500 will be set aside during a 10-year period for measures relating to the environment and safety. The Bothnia Line will be built.

Infrastructure plans

The national plans for transport infrastructure for the period 1998-2007 were adopted by the Government during the spring of 1998. County plans have been adopted by county administrative boards. MSEK 36,000 has been allocated for the national main-line plan; MSEK 2,400 of this will be allocated to enhancing the capacity of rail transport in central Stockholm and MSEK 1,900 for the City Tunnel in Malmö. The main-line plan provides for completion of the high-speed train programme and will improve the mobility and efficiency of rail freight transport. MSEK 30,500 has been allocated for the national road maintenance programme, which concentrates on projects that are designed to improve road safety. The measures prioritized by the Government consist mainly in improvements of the existing road system: clearing verge areas, improving crossings etc. The National Rail Administration and the National Road Administration will report once a year on implementation of the infrastructure plans. The Government will in turn report on the progress made in a communication to Parliament.

The Svealand Line, the Mälaren Line etc.

Several track sections have been improved and new sections opened for traffic during the year. Compared with other types of transport, rail transport accounts for low emissions of carbon dioxide and air pollutants and low energy consumption per passenger and per tonne. Improvements have been made to the Bergslagen Freight Highway and the Northern Main Line. The Svealand Line, which connects Stockholm with the cities and regions south of Lake Mälaren, has already been opened. Investments in the Svealand Line include 70 km of single track with capacity for a maximum speed of 200 kph, upgrading of the existing single track for a maximum speed of 160 kph and new electrical and signal systems, as well as about 50 bridges and 7 tunnels.

The Mälaren Line is nearing completion, which means that the 'Mälaren Ring' will soon be completed. When the work on the Mälaren Line is completed the total travelling time from Stockholm to Örebro will be less than two hours. The development of the Mälaren Line is partly financed by Mälarbanan Intressenter AB (MIAB), which is owned by the municipalities along the line. During the spring of 1998 the Government and MIAB agreed on further investments in the Mälaren Line and the Svealand Line, the purpose of which is to reduce the disturbance of passenger traffic by increasing the capacity and speed of the tracks. The Government approved the agreement in June, 1998.

The Bothnia Line

The agreement on the Bothnia Line was signed at the end of 1997. The construction of this line is significant for the region, and under the agreement the line, which will be over 190 km long, will come into operation in 2006. The agreement was approved by the Government in June, 1998. It provides for the establishment of a project company, Botniabanan AB, 91 per cent of which will be owned by the state and 9 per cent by the municipalities involved; it will be responsible for the financing, planning, procurement for, building and hiring out of the Bothnia Line. It will be financed via the open capital market. The building of the first section – between Örnsköldsvik and Husum – is planned to start in the summer of 1999. The investment in the line is estimated at MSEK 8,200. A new cost estimate will be made in the spring of 1999. If that estimate indicates that the cost will be higher, construction will be reconsidered before a start is made.

The Inland Line

At the end of 1997 the Government approved the payment of a grant for operation of the Inland Line. In the Government's view, the regional and cultural heritage values associated with the activities carried on around this line and the overall cultural environment that it represents are considerable. From the point of view of employment, the activities carried on around the Inland Line are vital if the municipalities involved are to achieve the declared regional policy goals. The Inland Line passes through an extensive forested area, which provides raw materials not only for traditional forest industries but also for biofuels and peat. The grant for the Inland Line is intended to support freight transport and will be paid until further notice. It will amount to MSEK 50 per year as of May 1, 1998 and will be reviewed once a year and calculated on the basis of transport and maintenance needs etc.

Stockholm

Following talks between the Government and representatives of the Stockholm region, an agreement was concluded in December, 1997 on the upgrading of rail capacity between Årsta and Stockholm South, including a new double-track railway bridge, and an immediate start on the construction of the suspended works on the South Link. The agreement has been approved by Parliament. On June 11, 1998 the Government decided to instruct the National Rail Administration and the National Road Administration to investigate the technological and economic possibility of alternative measures in central Stockholm in order to enhance rail transport capacity and improve the quality of public transport. The City of Stockholm will assist in conducting the investigation. The building of a road tunnel to replace Central Bridge will be the subject of a special study. The alternative - building a third track above ground – is only feasible if such a tunnel is built and measures are taken to improve the environment and make the cultural values in the Old Town area more accessible to the public.

Gothenburg

Talks between the Government and representatives of the Gothenburg region resulted in the conclusion on March 23, 1998 of a new agreement on

investment in the transport infrastructure of the Gothenburg region. Under the new agreement, investments will be made in measures designed to enhance the environment, in a new Göta traffic route and in improving public transport, and will involve the cofinancing of certain specified projects, while the Government will assume responsibility for the planning and implementation of certain projects related to the national road system. The Government will finance 75 per cent and the region or individual municipalities 25 per cent of the cost of the projects in a cofinanced investment programme. The total cost is estimated at MSEK 4,200 at January, 1998 prices.

97:3 Pursuing environmental issues in the areas of road, rail, sea and air transport in international fora

In September, 1997 the International Maritime Organization (IMO) adopted the air pollution annex to the Convention on Prevention of Discharges from Ships (MARPOL 73/78). The Annex includes rules limiting emissions of sulphur, nitrogen oxides etc. Especially low limit values for sulphurous emissions were laid down for the Baltic Sea region. Sweden signed the protocol in May, 1998. Together with the other North Sea countries, Sweden is actively pursuing the issue of reducing ships' sulphurous emissions in the North Sea too, within the framework of the IMO, and also, pending adoption of an international regulatory framework, in the EU.

At the ministerial session of HELCOM in March, 1998, Sweden successfully advocated the adoption of eight recommendations designed to limit the environmental impact of shipping on the Baltic Sea. This means that in future delivery ashore of all ship-generated wastes will be mandatory and that no fee will be charged for their disposal.

Efforts are also being made in international fora to introduce more stringent environmental standards for new types of aircraft, including the European Civil Aviation Conference (ECAC) and the International Civil Aviation Organization (ICAO), a UN organization, in which Sweden participates through the Civil Aviation Administration and the EU. Among other things the ECAC is preparing a ban against new registration of the noisiest aircraft. The ICAO processed a proposal on more stringent standards for emissions of nitrogen oxides for new jet engines in April, 1998. Sweden intends to press for even stricter standards.

97:4 Stimulating measures that will increase the availability of public transport

The Transport Policy Resolution lays down the availability of the transport system as one of its objectives. An area to which particular importance is attached is the availability of public transport for the functionally disabled.

Following Parliament's passing of the bills *An Infrastructure Policy for Future Transports* (Gov. Bill 1996/97:53, Committee Report 1996/97:TU7, Parl. Comm. 1996/97:174) and *Better Access to Public Transport* (1996/97:115, Committee Report 1997/98:TU3, Parl. Comm. 1997/98:10), the traffic authorities are now in a position to take speedy measures to fully adapt local and regional public transport to the needs of the functionally disabled. The legislation that has been passed provides for government grants up to a maximum of MSEK 1,500 for the period 1998-2002.

A new agency, the National Transport Agency ('Rikstrafiken'), will be set up to develop interregional public transport.

The Government will also appoint a new council for the task of investigating various matters relating to equality between men and women in transport and communications policy. The distribution of resources and the availability of transport for various population groups are important issues for this council to investigate.

97:5 Promotion of the development and use of information technology and transport informatics

In May, 1995, the National Road Administration was instructed to plan and implement a programme for road transport informatics. The use of information technology in the transport sector should make it possible to use the transport system more efficiently, which in turn will increase mobility, improve road safety and reduce environmental impact. The Administration will submit a final report at the end of 1998.

97:6 Further differentiation of landing fees in civil aviation on the basis of noise and atmospheric emissions

The Civil Aviation Administration introduced a system of landing fees related to hydrocarbon and nitrogenous emissions on January 1, 1998. At the same time, it increased the differentiation of fees on the basis of noise criteria. A new system for noise classification will be elaborated in 1998.

97:7 Noise protection measures in housing near airports

The Government has instructed the Civil Aviation Administration and other bodies to complete the first stage of the action plan against noise in existing built-up areas. These bodies will also report by November 1, 1998 on further measures to be implemented during the period 1998-2007 for the purpose of speeding up the process of meeting the guideline values for noise that have been approved by Parliament. The cost of the first stage is, with respect to the Civil Aviation Administration, estimated at about MSEK 100.

97:8 Differentiation of shipping dues in order to reduce emissions from shipping

Differentiated shipping dues on the basis of environmental criteria were introduced in January 1, 1998. So far, over 1,000 ships have applied for certificates showing that they use low-sulphur fuel. The Government intends to instruct the Swedish Maritime Administration to evaluate differentiated shipping dues and, where appropriate, to present proposals for improvements.

Measures proposed in 1998

98:1 Drafting an environmental and road safety programme

The Transport Policy Resolution presents a new general transport policy objective and five interim goals, which include a sound environment and safe traffic. The Government also describes strategies for adjustment to an ecologically sustainable and safe transport system. It is important to

coordinate the work on a safe transport system and a sound environment, both in order to capitalize on the coordination and effectiveness gains that can often be achieved in these two fields and in order to eliminate any conflicts between objectives as early as possible. The Government has instructed the National Road Administration, together with the National Police Board, the Swedish Environmental Protection Agency and the Swedish Association of Local Authorities, to prepare a national environmental and road safety strategy for the road transport system up to the year 2007. A report on this assignment is to be submitted by October 1, 1999.

98:2 Review of the possibility of introducing congestion pricing

A special investigator has been appointed to present proposals on legislation introducing congestion pricing in urban areas. With a view to introducing a congestion pricing system that will improve road transport in terms of the environmental impact and mobility, the investigator will analyse the constitutional modalities for introducing such a system, present proposals for general legislation on congestion pricing and special rules concerning road tolls in individual localities as a complement to the general legislation. The investigator is to report by February 1, 1999.

98:3 Development of concrete and monitorable targets for barrier effects. Evaluation of the use of strategic environmental assessments in infrastructure planning.

The Transport Policy Bill describes the strategies that are necessary in order to achieve the policy goal of a sound traffic environment. The Government attaches special importance to continuing efforts to develop strategic environmental assessments (SEAs). SEAs are an important tool for monitoring and evaluation of the regional and national objectives of infrastructure planning.

A national economic approach to the planning of measures related to the transport system should include assessments of all effects that are relevant in this context. Evaluations of effects that cannot be included in cost-benefit analyses should be presented in some other way. On the basis of the experience gained the Government intends, before the next planning round, to intensify the development of SEAs, among other things.

98:4 Increased investment in environmentally sound transport

The Transport Policy Resolution announced an increase of MSEK 20 in the allocation to the Committee on Communications Research from 1999 to enable it to continue to arrange demonstrations of environmentally sound transport systems, to conduct research on ways of adjusting transport and communications to a more efficient use of energy and natural resources and to draw on the experience gained from the pilot projects that it cofinances.

98:5. A coordinated and efficient freight transport system

The Government presents its views on freight transport in the Transport Policy Resolution. In the Transport Policy Bill the Government proposes that a freight transport strategy be drawn up for all modes of transport and that a Commission on Freight Transport (Dir. 1998:51) be appointed for this

purpose. The task of the Commission would be to take steps to ensure closer cooperation between the parties in the freight transport sector and the state, and to clarify the role of the state in the system. The Commission will keep track of developments in freight transport and develop a multimodal approach with a view to making the freight transport system more efficient, safe and ecologically sustainable. The Commission is to complete its assignment by June 30, 2001.

98:6 Implementation in the transport sector of the EU strategy adopted at the Cardiff summit in 1998

At the Cardiff summit on June 15-16, 1998 the European Council concluded that environmental aspects should be integrated into all the Union's policy areas. The next day a joint consultation was held on transport and environment, during which conclusions were adopted for the informal meeting that was held in Chester on April 24-26.

The fact that environmental aspects are being integrated into transport policy and that representatives of Ministries of the Environment and Transport have taken part in drafting joint conclusions must be considered a success. The conclusions establish the principle that environmental sustainability should be integrated into transport policy. The Member States are urged to implement national and local strategies to address environmental problems caused by transport. According to these conclusions, the Commission is to implement specific measures and formulate strategies designed to achieve sustainable transport systems. The Council undertakes to continue the efforts to integrate environmental factors into transport policy by various means. In December, 1998 the Council will present a situation report to the summit in Vienna.

4.6 The Ministry of Finance

The emphasis in the Ministry of Finance's area of responsibility is on taxes and the development of environmental accounts. In many cases, taxes may be cost-effective instruments that contribute to sustainable development. The work on environmental accounts, which takes into account both emissions and resource management, may be a useful means of increasing our understanding of what needs to be done in order to achieve sustainable development.

Measures implemented and ongoing activities

97:1 Amendment of the Government Agencies and Institutes Ordinance (1995:1322) so as to include provisions requiring ecologically sustainable development to be taken into account

This measure has already been implemented. Section 7 of the Ordinance (1995:1322) has been amended so as to give the directors of government agencies general responsibility for meeting the requirements with regard to ecologically sustainable development that apply to their functions. Under section 6 of the ordinance the Minister is responsible for operations.

97:2 and 3 Gradually intensified promotion of environmental objectives by means of fiscal incentives. Review of fiscal incentives. Areas currently being analysed include road and energy taxes.

The Transport Taxation Committee has submitted an interim report, *Vehicles, the Environment and Safety* (SOU 1997:126). Additional terms of reference (Dir. 1998:7) have been issued to the Committee and the term of the inquiry has been extended to October 30, 1998. A review of energy taxation is in progress and is to be completed by the end of 1998. Before the Government can present a bill on waste taxes the relevant proposals will have to be approved by the European Commission, which is currently examining their compatibility with Articles 92 to 94 of the EC Treaty. The Government decided to notify the Commission of the proposal in April, 1998. Legislation on waste taxes is expected to enter into force on July 1, 1999.

97:4 Continued development and use of environmental accounts. Use of environmental accounts in the 1999 Medium-Term Economic Survey.

Work on environmental accounts is in progress at Statistics Sweden, the National Institute of Economic Research and the Swedish Environmental Protection Agency. Close cooperation takes place between these three agencies and they are presenting their results in a joint series of reports. The purpose of their work is to increase understanding of the relationship between economics and the environment by preparing environmental statistics which can be related to various activities (as presented in the National Accounts database) and by preparing indicators for sustainable development. The environmental accounts will form the basis of an Annex on the environment to the 1999 Medium-Term Economic Survey. The Survey has been published at regular intervals since 1948. It is prepared by the Ministry of Finance without directives from the Government. Its purpose is to provide basic data for economic policy by making a comprehensive review of the structure, problems and potential of the Swedish economy. One of its tasks is to make macroeconomic assessments of long-term trends.

97:5 Taking environmental factors into account in connection with the investment policy of the National Pension Insurance Fund while ensuring a high rate of return

In conjunction with the establishment of the Governing Board of the Sixth Fund in 1996 the Government declared that the environment is an increasingly important competitive factor for enterprises. Consequently, the Government decided that, within the constraints of the basic need to achieve a continuously high rate of return and adequate risk diversification, the Governing Board of the Sixth Fund, like the other Governing Boards of the National Pension Insurance Fund, was justified in taking environmental aspects into account in its investment policy.

Parliament recently passed a bill introducing a reformed system for income-related old-age pensions (Gov. Bill 1997/98:151, Committee Report 1997/98:SfU13). One component of the new system is an earned premium reserve. In this system, funds corresponding to earned pension rights will be managed in security funds selected by the insured. Where the insured do not avail themselves of this option, these assets will be managed by the

Governing Board of the new Seventh Fund. A five-party group has commenced negotiations on the future investment rules for the National Pension Insurance Fund in the light of the pension reform. A decision is expected during the autumn of 1998 with a view to implementing new rules from January, 2000.

The insured's interest in a high rate of return and adequate risk diversification is a fundamental condition for operation of the Premium Pension Savings Fund. It should be possible also to take into account the commitment to an ecologically sustainable development without disregarding this primary requirement.

97:6 Ecological sustainability in connection with the management of state-owned property

The National Property Board manages 1.6 million square metres of commercial property and has adopted an environmental management plan in which the Board's long-term environmental work is presented. The design of the plan is consistent with the international environmental management system ISO 14001.

4.7 The Ministry of Education and Science

Education which provides knowledge in the sense of facts, skills and understanding is the decisive factor in promoting sustainable development and improving people's ability to solve environmental and development problems. The Ministry of Education seeks to strengthen the role of environmental education in schools by including education on the linkages between the environment and lifestyles. Introducing a new, interdisciplinary approach will make it possible to deal with the environment in all school subjects. The National Agency for Education is one of the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1). Universities and colleges also play a significant part by offering advanced education and carrying out research. Popular education is also important as a vehicle for mass dissemination of the knowledge that is necessary for the adjustment process.

Measures implemented and ongoing activities

97:1 Environmental schools

In September, 1998 the Government adopted an Ordinance introducing an 'Environmental School' award. (SKOLFS1998:122). In accordance with the Ordinance, the National Agency for Education can grant this award to pre-schools, state schools, independent schools and boarding schools. For schools to be eligible for the award, the pupils and staff must work together in focusing the teaching and other activities on ecologically sustainable development. The school must also take measures to ensure that all the pupils and staff recognize the importance of a good work environment and adequate health care and physical welfare. Furthermore, the school must

meet other criteria with respect to its activities, work environment, health care services and physical environment stipulated by the National Agency for Education for each type of school.

The National Agency for Education was instructed by the Government to prepare criteria for environmental schools, and it presented its proposals in August, 1998. Taking the necessary measures to be eligible for the award is voluntary, but it is hoped that a large majority of schools in Sweden will meet the criteria and be designated environmental schools.

97:2 Consolidating environmental education in upper secondary school by introducing a technology programme and more flexible subject structures

A working party at the Ministry of Education has prepared a proposal for continuing development of upper secondary schools. The working party has presented its report, *Upper Secondary Schools Undergoing Constant Development* (Ds 1997:78). *The Development of Upper Secondary Schools – Quality and Equivalence* (Gov. Bill 1997/98:169) is based mainly on the proposals presented in the report and proposes the introduction of a technology programme for the purpose of broadening the range of education in the natural sciences and technology, e.g. computer science, environmental studies, biochemistry and electronics. In July, 1998 the Government issued the Upper Secondary School Pilot Scheme for a New National Technology Programme Ordinance (1998:974). Further drafting is needed as regards the content and structure of the core subjects, and therefore no radical changes are prepared except that the subject Physical education and health is expanded in all course programmes. This subject will teach the pupils about the functions of their own bodies and increase their awareness of the importance of lifestyles for health and the environment.

97:3 Promotion of in-service training for teachers of environmental studies, natural sciences and technology

The increase in the block grant to the municipalities will provide resources for in-service training for teachers of environmental studies, natural sciences and technology. The National Agency for Education has been instructed to assess whether and how the municipalities discharge their task of ensuring that such training is planned and organized for teachers. The Agency will submit its report in October, 1998.

97:4 Consideration of ecological sustainability in the ongoing process of integrating pre-school and school education

The environmental perspective is one of the four perspectives that will be integrated into school education in accordance with the 1994 National Compulsory School Curriculum. In accordance with the proposals presented in Gov. Bill 1997/98:94, Committee Report 1997/98:UbU18 and Parliamentary Communication 1997/98:2360, the Government has adopted amendments to the National Curriculum to include pre-schools and day-care centres for school-age children. It is emphasized in this context that the integration of an environmental perspective will enable pupils both to take responsibility for their own immediate environment and to form their own opinions on general and global environmental issues. Teaching in schools

must demonstrate how society and our way of life, including work, can be adjusted to the demands of sustainable development.

In the Bill *The Pre-School Curriculum* (Gov. Bill 1997/98:93) the Government emphasized the role of pre-schools in teaching pupils the basic facts about nature and giving them an understanding of all forms of life. Subsequently, the Government adopted a national pre-school curriculum in which one of the tasks of pre-schools is defined as focusing on environmental and nature conservation issues. An ecological approach and faith in the future must characterize pre-schools. Pre-schools must help children to acquire a prudent view of nature and society and to understand their role in natural cycles. They must help children to understand how everyday life and work can be organized so as to contribute to a better environment both now and in the future. The increasing mobility across national borders makes it necessary for people to live with and understand the values inherent in cultural diversity.

Great importance should be attached to providing children with positive models and examples of how they themselves can influence environmental issues.

97:5 Introduction of environmental management systems at universities and colleges in 1998

In 1997, Lund and Stockholm Universities took part in the pilot project on the introduction of environmental management systems in public administration. Eight more universities/colleges, as well as the Swedish Council for Planning and Coordination of Research, joined the project in 1998.

97:6 Establishing the objective of treating environmental and resource issues in higher education to the extent and in a manner that is appropriate to the profession for which the education is preparing the students

The 1998 Budget Bill declares that environmental and resource issues should be treated in higher education to the extent and in a manner that is appropriate to the profession for which the education is preparing the students. It also emphasizes the far-reaching decentralization of higher education, which is even more marked when it comes to research. Consequently, the integration of environmental and resource aspects into higher education should not primarily be implemented by legislative means, but should take place and be pursued in response to the students', teachers', researchers' and employees' own initiatives. The Bill also mentions a number of examples of such activities that have commenced or are being planned.

The Government expects that the introduction of environmental management systems, including the integration of sustainable development aspects into education, will identify the need for, and facilitate, progress in this respect.

Measures proposed in 1998

98:1 Identification of research needs resulting from the measures that must be taken to adjust to sustainable development

The Government has instructed the Swedish Council for Planning and Coordination of Research, together with the Swedish Environmental Protection Agency, to develop and concretize the Swedish research programme to support sustainable development. It will present its report to the Government by November 1, 1998.

98:2 Continued efforts to assign environmental research an important role in the EU's Fifth Framework Programme for Research

Sweden is continuing its efforts with the aim of ensuring that environmental research and support for sustainable development are given a more significant role in the EU's Fifth Framework Programme for Research.

98:3 Continued efforts to intensify popular education on local investment programmes and ecologically sustainable development

When applying for government grants for local investment programmes, municipalities must describe ongoing and future ecological sustainability projects, including education and popular education programmes and their content. In order to translate the vision of ecological sustainability into reality, people will have to change their behaviour. This will require long-term popular education in the classic sense, i.e. a process in which knowledge leads to commitment and change both as regards individual behaviour and decisions by central and local government. Popular education, educational associations in particular, will have a key role in the efforts to turn Sweden into an ecologically sustainable society. Therefore, the Government recommends that adult education bodies should be eligible, through the municipalities, for government grants for local investment programmes so that they can contribute to laying the foundation for ecological sustainability.

98:4 Insertion of a provision in the Higher Education Act promoting democracy and student commitment

The Government intends later to present a bill proposing that a provision be inserted in the Higher Education Act stipulating that the activities of universities/colleges should be based on democratic ideas.

98:5 Introduction of a national programme – The Tools of Learning – for IT in school education

During a three-year period, 1999-2001, the Government will allocate MSEK 1,5 for support for school education in the form of information technology. This technology can help to improve teaching and assign new roles to pupils and teachers. IT expands the classroom and can help to develop teaching methods that activate pupils and to renew teaching methods. This will also increase the scope for pupils to make an active commitment and take concrete action in the process of adjustment to a sustainable society.

4.8 The Ministry of Agriculture

In *Sustainable Fisheries and Agriculture* (Gov. Bill 1997/98:2, Committee Report 1997/98:JoU9, Parl. Comm. 1997/98:116) the Government presents assessments and proposals for measures to achieve ecologically sustainable agriculture and fisheries. During the spring of 1998 the Government also presented a bill entitled *Guidelines for Sweden's Work on Agricultural and Food Policy in the European Union* (Gov. Bill 1997/98:142). Sweden's position is based on the view that more attention should be paid in the Common Agricultural Policy and the Common Food Policy to environmental and consumer aspects.

The Government has allocated MSEK 5,400 for the period 1998-2000 for local investment programmes designed to promote ecological sustainability. It is expected that significant projects will be implemented in the Ministry of Agriculture's area of responsibility in the next few years with a view to improving circulation of nutrients in cycles and measures to strengthen biological diversity.

Ecologically sustainable agriculture conserves resources, promotes a healthy environment and meets the ethical criteria. A basic requirement for ecologically sustainable production systems in agriculture is that they leave options open for the future. If the agricultural sector helps to preserve natural resources, promotes benign effects on the environment and minimizes the adverse environmental impact of agriculture, it will offer future generations better prospects and more choice when it comes to shaping a society with a high quality of life. Agricultural practices must also be ethically acceptable.

Sustainable fisheries preserve resources on a long-term basis and are economically viable. In accordance with two of the measures described in last year's Communication on ecological sustainability, Sweden will seek to bring about changes in the Common Fisheries Policy with a view to achieving sustainable fisheries on the basis of application of the precautionary principle, integration of environmental aspects and fulfilment of the ecological criteria. The basic principles – integration of environmental aspects, respect for ecological requirements and resource utilization that does not exceed the productive capacity of ecosystems – should be applied to fisheries policy. Sweden is pursuing these issues both nationally and internationally. Creating sustainable fisheries will enhance the opportunities of future generations for developing fisheries as a component of a future society with a high quality of life.

In the Government's view, the social conditions for successful environmental work are continuous efforts in both agriculture and fisheries to increase their responsibility for the environment. The Swedish Board of Agriculture and the National Board of Fisheries are among the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1). They have also been instructed by the Government to propose interim targets and measures that will contribute to the achievement of environmental quality goals proposed in the Environmental Bill where these fall within their areas of responsibility.

Measures implemented and ongoing activities

97:1 Efforts to change the Common Agricultural Policy in order to make agriculture more environmentally sound

The Common Agricultural Policy (CAP) must be changed in order to create the possibility of developing ecologically sustainable production systems (Gov. Bill 1997/98:142). Agricultural production involves both positive and negative environmental effects. It is a major challenge for the CAP to influence production in the direction of ecologically sustainable development. The present CAP is not designed with this task in mind, nor does it reflect the growing interest of consumers and society as a whole in environmentally sound production. The Government proposes three general goals for the Common Agricultural Policy and the Common Food Policy. Production should be controlled by consumer demand. It should be both ecologically and economically sustainable. Moreover, the EU should seek to ensure global food security. The Government considers that the Commission's proposals, as set forth in Agenda 2000, for intensifying efforts to improve the environment are a step in the right direction, but that they do not go far enough.

97:2 Further development of the Agri-Environmental Programme

The budget frame for premiums to farmers who implement pro-environment measures within the framework of the Agri-Environmental Programme has been increased by MSEK 700 from the beginning of this year. This means that the total cash limit of MSEK 2,800 per year which Sweden was granted in the pre-accession negotiations will be used up. The Bill *Sustainable Fisheries and Agriculture* includes details of the extended programme. Parliament and the European Commission have approved the Government's proposals and most of these changes were implemented in 1998. A proposal relating to a new premium for preservation of valuable natural and cultural environments in reindeer husbandry has been submitted to the Commission. The present Agri-Environmental Programme runs until 2001. The Government has appointed an investigator who is to submit proposals concerning the continuing orientation and content of a new Swedish agri-environmental programme for the period 2001-2005.

97:3 Drafting an action programme for the use of pesticides, 1997-2001

Parliament has approved the main features of the Government's pesticide programme for 1997-2001, which was presented in the Bill *Sustainable Fisheries and Agriculture*. The objective is to ensure a continuing decrease in the health and environmental risks involved in the use of pesticides in agriculture and horticulture, and this will be achieved by means of a variety of measures and by more investigation and quantification of the risks involved. Funds have been allocated in 1998 for pilot projects and development work in accordance with the Government's proposals. Information and education programmes for farmers are very important. Funds have been allocated for education, information and demonstration projects within the framework of the Agri-Environmental Programme.

97:4 Promotion of ecological production

The Swedish Board of Agriculture has drafted an action plan for ecological production for the purpose of achieving the goal set by Parliament, i.e. that 10% of all arable land should be under ecological cultivation by 2000. The plan, which is discussed in the Bill *Sustainable Fisheries and Agriculture*, establishes important guidelines for continuing efforts. Ecological production will be promoted by a system of premiums for farmers and the provision of funds for education, information and demonstration projects within the framework of the Agri-Environmental Programme, pilot and development projects, research, and market support measures. Parliament and the European Commission have approved the Government's proposals for a new measure within the framework of the Agri-Environmental Programme in 1998, the purpose of which is to promote ecological fruit and berry production. In the Government's view, there are good prospects of achieving Parliament's objective, i.e. that 10% of all arable land should be under ecological cultivation by 2000. The Government has instructed the Swedish Board of Agriculture to propose new goals for ecological production after 2000.

97:5 Reduction of nutrient losses from agriculture

The loss of nutrients through nitrogenous and ammonia leakage is one of agriculture's greatest problems. The environmental targets in this respect have still not been achieved despite the work done within the framework of existing action programmes. The Government has instructed the Swedish Board of Agriculture to prepare a more effective action programme to reduce nitrogenous leakage from agriculture. The Government has also instructed the Board to draft proposals for targets for ammonia losses and related action programmes. Funds have been allocated in 1998 for pilot projects and development work in accordance with the Government's proposals. Information and education programmes for farmers are very important. Funds are allocated for education, information and demonstration projects within the framework of the Agri-Environmental Programme.

97:6 Further development of action plans for the preservation of biological diversity in agriculture and reindeer husbandry

The action plans for the preservation of biological diversity have in all essentials been implemented within the framework of the Agri-Environmental Programme. The extended Agri-Environmental Programme also includes measures aimed at preserving and developing biological diversity in agriculture and reindeer husbandry. The Government has instructed the Swedish Board of Agriculture to prepare a national programme for the preservation and long-term use of genetic resources for food and agricultural production. Continuous monitoring and evaluation of the environmental effects of the CAP has started in accordance with the Government's instructions to the Swedish Environmental Protection Agency, the Swedish Board of Agriculture and the National Heritage Board. If their findings show that the environmental situation calls for further measures, the need to extend the action plan should be considered.

97:7 Implementation of the action plan for biological diversity in the fishery sector

The National Board of Fisheries was instructed by the Government to draft an action plan for implementation of the plan for the preservation of biological diversity in the fishery sector. This action plan will be implemented. Most of the measures will be implemented within a 3-year period, but the time frame varies for the 27 different measures. Most activities have already commenced and funds have been allocated in 1998 for implementation.

97:8 Upgrading fishery conservation. Intensification of the efforts to improve fishery conservation, particularly in coastal areas and large lakes

MSEK 20 has been allocated for fishery conservation from the year 1998. This programme will include measures to preserve endangered species and strains, measures relating to biotoped, the establishment of fishery conservation areas and more stringent supervision of fishery conservation. In addition, MSEK 20 was set aside in 1998 for fishery conservation measures within the framework of labour market programmes.

97:9 Implementation of the action plan for Baltic salmon

The action plan for the preservation of biological diversity in the fishery sector should be implemented. The international action plan for Baltic salmon will be in force until 2010. Short- and medium-term objectives have been specified. National and international working parties are involved in implementation of the plan. The National Board of Fisheries has submitted a draft national action programme to the Government.

97:10 Development of North Sea cooperation on fishing

An evaluation will be carried out in time for the next North Sea Conference. This will include refinement of the 'ecosystem approach' to fishing. Work is in progress in the North Atlantic Salmon Fund on a long-term action plan for Atlantic salmon.

97:11 Baltic 21

The preparation of an Agenda 21 programme for the Baltic Sea region is an important element of Sweden's efforts to deepen and enlarge cooperation between the countries in the region. Sweden has assumed lead party responsibility for the agricultural sector and has been responsible for drafting a common action plan. In the spring of 1998 Sweden also took an active part in the work of drafting a report for the fisheries sector.

Measures proposed in 1998

98:1 Energy plantation

The plantation of forest on cropland for energy purposes helps to reduce greenhouse gases both by increasing the availability of renewable energy and by fixing carbon dioxide during the growing season. In 1997, nationally

financed establishment grants for the energy plantation were introduced. within the framework of Council Regulation (EEC) no. 1765/92 establishing a support system for producers of certain arable crops. So far, only marginal use has been made of these grants, since new planting of forest for energy purposes has declined sharply in recent years. In order to stimulate farmers' interest in energy plantations, the Government proposed in the Environmental Bill that funds from expenditure area 23 (appropriation B12) could also be used for other measures, to promote energy plantation.

98:2 A new reindeer husbandry policy

The Government has appointed a committee with the task of submitting proposals for a reindeer husbandry policy which will lay the foundation for sustainable reindeer husbandry in ecological, economic and cultural terms. It will report by the end of 1999.

98:3 Integration of environmental aspects into the CAP

Sweden seeks to persuade the EU to adopt agricultural and food policies whose general objective will be to promote sustainable agricultural and food production. In December, 1997 the Luxembourg Summit decided, on Sweden's initiative, to instruct the Commission to elaborate proposals for integration of environmental aspects into EU sectors. The Cardiff Summit in June, 1998 decided that strategies for integration of environmental and sustainable development aspects should be developed within various EU policy areas, including agriculture. This work is now in progress and a report will be submitted at the Vienna summit in December, 1998.

4.9 The Ministry of Labour

Labour market policy should be developed in such a way as to combine environmental and employment objectives and at the same time speed up adjustment to ecologically sustainable development. The Government's various initiatives, such as the Baltic Billion, the ecocycle billion, the Small Business Billion and local investment programmes, are steps towards an ecologically sustainable development of which the environmental and employment aspects are integral parts.

Measures that are important both from the point of view of the environment and employment are being implemented within the framework of various labour market programmes. At present, environmental measures are being implemented above all in the youth work experience scheme (ALU). Smaller-scale measures are also being undertaken in the form of relief work. Most of these are Agenda 21 projects, environmental information projects targeting various interested parties, recycling and pre-separation projects, and projects in the field of forest, landscape, water and nature conservation. Labour market training programmes also contain environmental features.

Secure and stimulating employment with appropriate work organization, which is characterized by employee participation, small risk of injury, in-service training and long-term skills enhancement is a vital condition for ecologically sustainable development. The Swedish National Labour Market

Administration and the National Board of Occupational Safety and Health are among the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

Measures implemented and ongoing activities

97:1 Designing labour policy measures so that they are consistent with the objectives of ecological sustainability

In February, 1998 the National Labour Market Board submitted a report to the Ministry of Labour in accordance with its instructions to present proposals for a longer-term strategy for the contribution of labour market policy to an ecologically sustainable society. According to the Board's proposals, the object should be to coordinate the environmental work undertaken within the framework of labour market policy with that being done within the framework of industrial and regional policies in order to facilitate adjustment to regional and local conditions. In connection with decisions concerning labour market measures and programmes, environmental aspects should be taken into account as well as labour market aspects.

The strategy proposed by the National Labour Market Board will be implemented by the Swedish National Labour Market Administration during a two-year period. The proposals include the provision of training for all the Administration's staff, customized for various target groups, so that all the staff embrace the vision of sustainable development and acquire the knowledge and skills that are necessary to enable them, in the field of labour market services, to understand the ecological aspects and integrate them into labour market policy. It is also proposed that all county labour boards should, in connection with activity planning, elaborate a concrete action plan for integrating measures to promote ecological sustainability into labour market services. The same is proposed for all employment services. The county labour boards' planning for an ecologically sustainable Sweden will be followed up and reported to the National Labour Market Board.

Furthermore, in its Budget Bill for 1998 the Government emphasized the importance of focusing on labour market programmes on the construction projects that are now being implemented within the framework of environmental and energy programmes for an ecologically sustainable Sweden.

97:2 Improving the scope for more innovative and forward-looking environmental measures within the framework of EU structural funds

The Bill *Regional Growth – for Work and Prosperity* (Gov. Bill 1997/98:62) states that regional and structural policy measures should contribute to sustainable development and a sound environment on the basis of refined environmental assessments. In the EU, the Government is using its influence to ensure that the Commission's rules for the next programming period will support such a policy. Together with other agencies, the Swedish Environmental Protection Agency is developing methods that will improve the integration of environmental and resource management aspects into the

structural fund programmes and their implementation in Sweden. This work should be intensified to ensure that the programmes implemented during the forthcoming period will contribute to ecologically sustainable development.

97:3 Emphasizing the need for measures to promote secure and stimulating employment as part of an integrated approach to development

In April, 1998 the National Institute for Working Life submitted a report to the Ministry of Labour in accordance with its instructions to present documentation on the research and education that is needed in order to clarify the probable effects of measures to improve the natural environment on the work environment in various sectors and among various professional groups. The Institute's report *The Effects of Environmental Protection Measures on the Work Environment* states that research and education in this area have been neglected. It also establishes that the extensive body of knowledge and methods that has gradually evolved in the field of work environment has not been sufficiently utilized in the work of improving the natural environment. The Institute intends to set up an advisory group consisting of representatives of various authorities, organizations and other interested parties.

Measures proposed in 1998

98:1 Legislation on telework

The Government decided in June, 1997 (Dir. 1997:83) to appoint a special investigator to review the legislation on telework. The starting-point of this investigation is that telework can benefit both individuals, industry and society as a whole in terms of increased employment and growth, as well as promoting ecologically sustainable development. The investigator was instructed to assess the effects of various teleworking arrangements on working conditions, the external environment and other variables. The investigator submitted a report in September, 1998.

98:2 Documentation of the effects on the work environment of the ongoing adjustment to an ecologically sustainable society

In April, 1998 the Government instructed the National Board of Occupational Safety and Health, in consultation with the Swedish Environmental Protection Agency, to document the positive and negative effects on the work environment of the ongoing adjustment to an ecologically sustainable society. One of tasks was to investigate how the measures taken with respect to the external environment have changed the work environment for various groups of employees. The assignment also included the task of proposing general measures, where necessary, for the purpose of ensuring that the jobs created in various sectors are secure and stimulating.

The National Board of Occupational Safety and Health submitted its report in June, 1998. The report, *A Study of the Effects on the Working Environment of Measures Aimed at Ecologically Sustainable Development*, indicates that, for those who are engaged in the task of building an

ecologically sustainable Sweden, the work environment has not been a high priority. Often, the new enterprises that have been established, for example in the recycling business, ignore the health effects involved in their operations. The work environment must be an integral part of the process of adapting Sweden to ecologically sustainable development. This makes it necessary to provide training and information for several categories of key persons. It is also necessary to explain that the term 'environment' includes both the natural environment and the work environment. This realization must characterize all environmental work from the level of government agencies down to individual workplaces.

The report also emphasizes that work environment standards must be taken into account in all forms of public procurement, in connection with environmental certification and in environmental policy documents. Research must be started on the risks inherent in the new materials and processes that emerge in an ecocycle-oriented society and support must be provided for technological development.

4.10 The Ministry of Culture

Cultural values determine the organization of a large part of our daily lives. Culture is the foundation of and a condition for a sustainable society. The cultural sector can contribute to ecologically sustainable development through its great diversity of activities that are connected with community development and cultural perspectives. The National Heritage Board is one of the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

Wise management and preservation of our common cultural heritage is the key to the work of achieving sustainable development. Cultural values are intimately associated with natural and environmental values and most people do not regard these sets of values as different systems but as an integrated whole. This is most apparent when it comes to the urban environment and the cultural landscape.

Measures implemented and ongoing activities

97:1 Development and enhancement of the cultural environment sector in the process of adjustment to a sustainable society

The cultural environment sector represents an important element of the work on behalf of a sustainable society. The Environmental Bill assigned the National Heritage Board special responsibility for following up those aspects of the new environmental quality objectives which related to the cultural environment. The ministers of culture in the states in the Baltic Sea region decided in September, 1997 to appoint a joint working party in order to develop and strengthen efforts on behalf of the cultural environment in the region. The National Heritage Board is participating in and coordinating its work. The working party will submit proposals in September, 1999 for a strategic action plan for the common cultural heritage of the Baltic Sea region.

97:2 Further development of the ecological aspects of preservation of the architectural heritage

MSEK 3.4 has been allocated to the National Heritage Board from the Ecocycle Billion for the purpose of preserving traditional building techniques. The reason for this is that buildings constructed with such techniques are often environmentally sound and long-lasting. It is also important to protect the cultural environment in connection with the maintenance and renovation of existing buildings. The funds are to be used for a guide to materials for ecologically sound preservation of buildings, for a network for entrepreneurs who specialize in the preservation of buildings and for the establishment of cooperation between various professional categories in connection with planning.

The Government has also given the National Heritage Board the main responsibility for implementation of two projects relating to ecologically sound preservation of the architectural heritage of the Baltic Sea region. These projects, in Poland and Estonia, have been granted a total of MSEK 60 from the Baltic Billion.

97:3 Promoting good architecture and design

In the spring the Government presented the Bill *Shaping the Future - an Action Plan for Architecture and Design* (Gov. Bill 1997/98:117) to Parliament. The Bill emphasized the importance of high-quality architecture and design of the physical environment in view of the desirability of an attractive and stimulating environment. Special importance is attached to the need for public bodies to set a good example, and the state has major responsibility by virtue of its various roles and incentives.

High quality architecture and design tend to increase the life of buildings and maximize the utilization of both economic and natural resources. In order to achieve high-quality architecture and design, various aspects must be taken into account. The Government has emphasized the importance of considering the ecological aspects as well as the functional, technical, economic, social and aesthetic aspects. Adjustment to ecological sustainability is likely to have a substantial effect on the existing stock of buildings. Within the framework of government aid to local investment programmes for ecological sustainability the Government has also stressed the importance of paying attention to architectural qualities and cultural heritage assets.

97:4 Special projects during the European Culture Capital Year relating to environmental and ecological issues

In 1998, Stockholm is the Culture Capital of Europe. Some of the projects being implemented during the Culture Capital Year have therefore applied for and been granted funds from the Ecocycle Billion. Many of the projects being carried out during the year are the result of cross-sectoral cooperation. Examples of such areas are cultivation and ecocycles, crafts and gardens, ecology and waste, architecture and cultural history, and urban development and the connection between social and ecological sustainability.

97:5 Increased cooperation between preservation of the cultural environment and nature conservation

The Environmental Bill emphasizes the importance of closer cooperation between bodies in the nature conservation and cultural environment sectors. The Environmental Code (Gov. Bill 1997/98:45, Committee Report 1997/98:JoU20, Parl. Comm. 1997/98:278) includes provisions relating to the natural and cultural environment. In *Implementing Forestry Policy* (Gov. Bill 1997/98:158) the Government declares that an integrated approach to the natural and cultural heritage values of forests is essential for the success of the continuing work of preserving and developing the environmental assets of Swedish forests and that the management of the natural and cultural assets of forests should be better coordinated. In its appropriation instrument for 1997 the Government has coordinated the operational goals of the National Heritage Board and the Swedish Environmental Protection Agency more closely in an effort to ensure increased cooperation between the nature conservation and cultural environment sectors. The appropriation instrument for 1998, moreover, requires the two agencies to submit reports on the results of cooperation between these sectors.

Measures proposed in 1998

98:1 The urban cultural environment and architecture

Our cities have evolved as the result of different historical conditions. Various social, economic and ideological structures have given these cities their outward appearance, which in turn determines the character and identity of town plans and the urban environment. The variation in the gradually evolving townscape is worth protecting by preserving old buildings and taking measures to ensure that the new ones are of high quality. This is particularly important in view of the changes that will now have to be made in the urban environment due to the adjustment to ecological sustainability, which may affect both infrastructure and particular areas. In order to intensify architectural measures and the preservation of the urban cultural environment the Government has proposed, in the Bill *Development and Justice – an Urban Policy for the 21st Century* (Gov. Bill 1997/98:165), that MSEK 10 be allocated for this purpose for each of the next three years. These measures will involve improvement of the information base on the cultural environment and investments in construction projects for the preservation of cultural heritage or architectural assets. It is also proposed to launch a large-scale campaign to promote architectural policy issues; this will be concluded by an Architecture Year in 2001.

4.11 The Ministry of Industry and Trade

An industrial sector that is sustainable in all respects is an essential condition for maintaining and enhancing prosperity in Sweden. Ecological and

economic sustainability go hand in hand and are basically a matter of management and efficient use of resources.

The Swedish National Board for Industrial and Technical Development (NUTEK), the Geological Survey of Sweden and the National Board of Forestry are among the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1). These bodies have also been instructed by the Government to present proposals for interim goals and measures that will contribute to achievement of the environmental quality goals proposed in the Environmental Bill which fall within their areas of responsibility.

MSEK 9,000 has been allocated to the energy policy programme that was launched in 1997 (Gov. Bill 1996/97:84, Committee Report 1996/97:NU12, Parl. Comm: 1996/97:272). The main focus of the programme is large-scale, long-term support for research, development and the demonstration of new energy technologies. The objective is to develop, within the next 10-15 years, commercially profitable technologies for the generation of electricity and heat from renewable sources and for more efficient energy use. The Swedish National Energy Administration, which was established on January 1, 1998, is responsible for implementation of most of the programme.

In a joint declaration issued in Bergen, Norway, in June, 1997 the Nordic prime ministers declared their commitment to sustainable energy supply in the Baltic Sea region. The Nordic Ministers of Energy were instructed to investigate the prospects for such a development. In May, 1998 the Ministers of Energy presented a report to the prime ministers in which they proposed further cooperation between the Nordic countries on interconnection of their electricity and gas grids. A meeting between the Ministers of Energy in the Baltic Sea region is planned for the late autumn of 1998.

Measures implemented and ongoing activities

97:1 Decommissioning of the two nuclear power plants in Barsebäck

The energy policy programme adopted by Parliament in the spring of 1997 contains measures designed to reduce the use of electricity and to develop the generation of electricity and heat from renewable sources. The results of this programme are expected to correspond to the annual production of electricity at the Barsebäck plant. The programme is dealt with in greater detail in the 1998 Budget Bill.

Investment grants will be paid during a five-year period for development of electricity generation from renewable sources of energy and more efficient and reduced use of electricity. Efficient use of energy will be stimulated by subsidies for information, education, municipal advisory services, and the testing and measurement of equipment. In the 1999 Budget Bill the Government will present the first report on the results that have been achieved by these measures.

On February 5, 1998 the Government decided, pursuant to the Decommissioning of Nuclear Power Act (1997:1320), to terminate the right to operate the nuclear power plant Barsebäck 1 for extraction of nuclear energy as of June 30, 1998. The owners of the Barsebäck nuclear plant later applied to the Supreme Administrative Court for a judicial review of the

Government's decision. The Supreme Administrative Court ruled that operation of the reactor may continue pending a final decision of the Court.

97:2 Adoption of a new energy policy programme

The 1997 energy policy programme includes measures to develop technologies for the energy systems of the future. The main focus of the seven-year programme is large-scale, long-term support for research, development and the demonstration of new energy technologies. These measures were presented in the 1998 Budget Bill.

A special investigator was recently appointed to investigate certain matters in connection with the development of wind power in Sweden. The investigator will submit a report by June 1, 1999.

A special investigator was also appointed to submit proposals for projects designed to contribute to cost-effective development of the production, distribution and use of biogas as fuel in motor vehicles. It is planned to start the project by July 1, 1999.

97:3 The use of fossil fuels should be reduced to a low level. The existing distribution system for natural gas, which is the cleanest fossil fuel, should be used more efficiently

A review of the energy tax system is in progress in the Government Offices. This review is being conducted in order to allow the Government to present a bill on the subject in the spring of 1999. The review is based on the objectives with respect to energy taxes that were adopted by Parliament in connection with the 1997 Energy Policy Resolution. In accordance with these objectives, taxation should provide incentives for efficient use and conversion to renewable sources of energy, at the same time as it must not affect the international competitiveness of Swedish industry. The tax rules should promote the generation of electricity using renewable sources of energy. The environmental advantages of natural gas, as compared with oil and coal, will be taken into account.

A special investigator was recently appointed to review the legislation concerning the trade in, and the transportation and distribution of, natural gas and other sources of energy distributed by pipelines. The investigator is to keep abreast of work in progress in the EU on the formulation of common rules for the single market for natural gas and is to submit, by November 1, 1999, draft legislation on natural gas that meets the requirements of the new Directive and that can form the basis of a cost-effective Swedish natural gas market.

97:4 Investigation of the opportunities for and obstacles to increased exports of environmentally sound technologies and products

A special investigator was appointed to study the opportunities for and obstacles to increased exports of environmentally sound technologies and products. The investigator was instructed to draw conclusions from the studies and work that have already been done and the initiatives that have been taken in this area. On this basis, the investigator was to propose an integrated strategy and action plan for the promotion of exports of services and products in the environmental sector. The Environmental Exports Commission submitted its final report on October 2, 1998.

97:5 Investigation of the progress made in other countries on ecologically sustainable solutions and continuous monitoring of developments

A foreign consultant will be commissioned to study where industry has made most progress as regards ecologically sustainable solutions and to assess the status of Swedish industry in comparison with those countries.

97:6 Promotion of the integration of industrial, trade and environmental policies

The Ministry of Industry and Trade has presented a proposal for a new environmental policy, according to which environmental matters will be dealt with more systematically.

97:7 Stimulating the creation and continued existence of networks associated with enterprises, both locally and in connection with exports. Ensuring that expertise on ecologically sustainable development is available, e.g. in Industrial Development Centres

Within the framework of the recently established cooperation between the Ministry of Industry and Trade and the Federation of Swedish Industries for the purpose of analysing networks or clusters in successful groups of companies it will be possible to make a corresponding study of the possibility of examining the sector for environmental engineering.

97:8 Promoting the introduction of environmental management systems in small and medium-sized enterprises (SMEs)

Since 1996 NUTEK has promoted environmental management in SMEs with funds from the appropriation for SME development. Apart from some local financial assistance, it has offered free telephone advisory services, seminars and assistance with EMAS registration. According to NUTEK's activity plans for 1998, it will continue to assist SMEs with the application of environmental standards.

97:9 Education campaign for forest owners

The education campaign 'Greener Forests' is aimed primarily at small forest owners and emphasizes the landscape aspects of forestry. The campaign is financed mainly via the budget in accordance with the 1998 Budget Bill. Extensive preparations, including the establishment of demonstration plots, are being made in 1998. The campaign will start in 1999 and is planned to run for three years.

97:10 Continued work on the preparation of an Agenda 21 for sustainable development in the industrial sector within the framework of the Baltic 21 project

Sweden and the Russian Federation have led the work of preparing a regional action plan for sustainable development for the industrial sector in the Baltic Sea region within the framework of Baltic 21. An interim report was issued in February, 1998. A final document has been drafted for Agenda 21 in all seven sectors (see section 3.7).

97:11 Implementation of the Environmental Technology Commission's proposals

In the 1998 Spring Economic Bill (Gov. Bill 1997/98:150) the Government proposed that MSEK 20 should be allocated to the Environmental Technology Commission from the Ecocycle Billion. In an annex to its interim report for the first half of 1998 the Commission submitted proposals on the basis of the experience gained for continuing efforts to promote the development of environmentally sound technologies, products and processes in Sweden. During the remainder of 1998 and 1999, the Commission intends to continue its work in priority areas (transport, construction and housing, food and agriculture, and soil decontamination), to refine the proposals annexed to the interim report and to disseminate information on environmentally sound technologies in various ways.

The projects launched by the Commission in 1997 and 1998 include the following: competitions whose object is to demonstrate and verify successful decontamination techniques and techniques for ecologically sound private sewerage systems, a national competition for the purpose of producing marketable 'green' innovations and product ideas, requirement specifications for greases, motor oil for two-stroke mixtures, indoor paints and manure/fertilizer spreaders, procurement of fuel-flexible small cars, documentation of and information on technologies for the disposal of PCBs in buildings, documentation of environmentally sound alternatives in ecologically sustainable buildings etc.

Measures proposed in 1998

98:1 Support for ecodesign projects

The Ministry of Industry and Trade and NUTEK are cofinancing an ecodesign project whose purpose is to use ecological design to simulate the development of environmentally sound products in SMEs. Altogether, fourteen enterprises and designers are participating in this project under the management of the Swedish Industrial Design Foundation. An important feature of the project is also to disseminate information about its results in order to inspire others. The project will be completed in 1999 and the project budget totals MSEK 6.2.

98:2 Implementation of forest policy

The Bill *Implementing Forestry Policy* contains an evaluation of the 1993 Forest Policy Resolution (Gov. Bill 1997/98:158) by the National Board of Forestry and the Swedish Environmental Protection Agency. The Government notes that neither the production targets nor the environmental objectives of forest policy have been achieved. However, these objectives should remain unchanged. In order to achieve the objectives more rapidly and effectively, some amendments to the Forest Conservation Act (1979:429) are proposed. These include specification of the requirements for forest regeneration and environmental considerations. It is also proposed that the provisions on the furnishing of financial securities for regeneration measures after cutting be made even more stringent. In order to emphasize the need of accurate data for all forest owners, it is proposed that all holdings

must keep an account of the appearance of forests and the natural and cultural environment assets that are registered in this respect. Aids are announced for perimeter protection of various kinds and for information, advice and supervision. Lastly, an account is given of certain cultural environment issues in forestry based on an investigation by the National Heritage Board. It is proposed that the amendments to the Act enter into force on January 1, 1999.

98:3 Implementation of Baltic 21 action programmes

The work of preparing an Agenda 21 for the Baltic Sea region – Baltic 21 – is an important element of Sweden's efforts to deepen and enlarge cooperation between the countries in the region. This work will now focus mainly on implementation of the action programmes. Sweden has undertaken to assume responsibility for coordination of implementation of the programmes for the industrial sector.

98:4 Implementation of the EU strategy adopted at the Cardiff summit in 1998 for the energy sector

Sweden has taken the initiative in emphasizing the importance of sustainable development in the Council of Ministers of Energy. Much of the work done by the Council is consistent with the commitment to this issue. Examples of items on the Council's agenda in the autumn of 1998 are the deregulation of energy markets, preparation of a strategy for the promotion of renewable sources of energy and a strategy for more efficient use of energy.

4.12 The Ministry of Interior

In order to achieve satisfactory results in the work of adjusting to ecologically sustainable development, community planning, the construction sector and the consumer sector are of great importance. The National Board of Housing, Building and Planning and the Swedish Consumer Agency are among the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

One theme of *A Housing Policy for Sustainable Development* (1997/98:119) is that Sweden's international commitments in connection with the 1992 UN Conference on Environment and Development in Rio de Janeiro (UNCED) and the UN Conference on Human Settlements (Habitat II) in June, 1996 have given housing policy a new dimension. As an essential component of social welfare policy, housing policy must help to lay the foundations for sustainable development in social, cultural, economic and ecological terms.

The Environmental Bill establishes that urban areas must provide a good, healthy living environment and contribute to improvement of the regional and global environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote wise long-term management of land, water, energy and other natural resources.

Construction and housing account for substantial consumption of resources. Globally, they account for one-sixth of the world's consumption of fresh water, a quarter of wood consumption and two-fifths of all use of materials and energy. In Sweden too the construction sector dominates the consumption of the country's resources.

Ecological sustainability should be a common objective in all community planning. This calls for new working arrangements and extensive development work. Above all, better coordination and collaboration between the different bodies engaged in community planning are necessary. The national environmental quality goals proposed in the Environmental Bill, together with other national objectives, must serve as a guide for spatial and community planning. A good urban environment is the key to community planning.

The EU's Member States and the Commission have for several years been preparing a regional development plan for the territory of the Union – the European Spatial Development Perspective (ESDP). A geographical environmental database - Coordination of Information on the Environment (CORINE) - is being created in the EU so as to make it possible to compare the state of the environment and note changes between the Member States, which in turn will facilitate planning and implementation of Community environmental policy.

An important element of consumer policy is the need to encourage sustainable consumption and production patterns. The Communication *Consumers and the Environment – an Action Plan For Sustainable Development* (Comm. 1997/98:67) was presented to Parliament at the beginning of March. The Communication presents the Government's views on important issues relating to the environmental objective of consumer policy.

The overall guideline for this work is the object of gaining international acceptance for Swedish positions.

Measures implemented and ongoing activities

97:1 Establishment of an integrated approach to community planning by developing coordination on planning, housing democracy and women's perspectives

Coordination of community planning

The municipalities, which are mainly responsible for spatial planning, have a key role in the process of adjustment to achieve ecologically sustainable development. It is essential to the success of the strategy that the planning perspective should be extended so as to coordinate ecological, economic and social aspects with urban planning and the management of natural resources. Such an approach necessitates an improved information base, continuous method development and exchanges of experience. There is increasing awareness of the need for cooperation between the regional, national and transnational levels. The regional perspective is important as regards industry, infrastructure and transboundary environmental problems.

It is the task of county administrative boards to promote ecologically sustainable development in all their operations. An important instrument in

this work is the county administrative boards' Strategies for Regional Environment. These strategies involve a process-oriented procedure. In its evaluation of the strategies the Swedish Environmental Protection Agency (report No. 4819) notes that the reports submitted by county administrative boards are of "exceptionally high quality". The Agency emphasizes that the strategies must be regarded as a continuous process that develops as knowledge increases. As a result, they can serve as dynamic environmental strategies for the whole county and a basis for guidelines and factual data for a number of activities at regional and local level, such as Agenda 21, environmentally sound transport systems, municipal spatial planning, regional development strategy and regional environmental and resource management programmes.

The extensive restructuring of trade in Sweden and the rest of Europe is one example of an issue that may have to be considered in a regional perspective. The establishment of out-of-town shopping centres often has a regional dimension, since such centres require a large customer base and may affect the existing retail trade and traffic planning in other municipalities. These changes also affect consumers. Fears have been expressed in the EU that increasing establishment of out-of-town shopping centres may conflict with sustainable urban regional development. In the Government's view, the establishment of such centres should be considered in both a local and a regional perspective. The National Board of Housing, Building and Planning is currently studying developments in Sweden as regards out-of-town shopping centres and their consequences. The Government is following developments.

The EU's Member States and the Commission are committed to integrated regional development planning – European Spatial Development Perspective (ESDP). Regional planning in this connection includes both traditional spatial planning and various regional policy measures and control of public investments.

The overall objectives of the ESDP are sustainable development and a balanced distribution of growth and prosperity. The ESDP has three basic themes:

- a more balanced and polycentric urban system and a new relationship between urban and rural areas
- parity of access to infrastructure
- wise management and development of the natural and cultural heritage.

The purpose of the ESDP is to improve the regional coordination of the Community's policy areas. This calls for a deeper national dialogue between the Government and local authorities, and also between the bodies concerned with regional development, communications, the environment, the national and cultural heritage and spatial planning. Practical application of the principles of the ESDP takes place within the framework of the Community initiative Interreg IIC, whose purpose is to promote cross-border cooperation on regional development planning. Specific programmes have been prepared, and Sweden participates in the programmes for the Baltic Sea region and the North Sea region. The local and regional bodies have a key role in implementation.

In the autumn of 1997 a national consultation on the ESDP was arranged. The report on this consultation shows that there is a great need of more

thorough discussion of both the form and the content of well-developed sectoral coordination at national and regional level.

Developing housing democracy and women's perspectives

Both *A Housing Policy for Sustainable Development* (Gov. Bill 1997/98:119) and *Development and Justice – an Urban Policy for the 21st Century* (Gov. Bill 1997/98:165) emphasize that residents' influence over and commitment to their homes and residential areas must increase. This is essential in order to achieve social sustainability in housing, regardless of the form of tenancy, in all residential areas. The municipalities and municipal housing companies have an important task in this connection, for example by adapting and decentralizing real estate management so as to meet the residents' needs and allow them scope for practical participation and responsibility. Measures to promote decentralized real estate management and greater user influence can be included as important features of local development agreements for vulnerable residential areas which the Government intends, in accordance with its proposals in the Urban Policy Bill, to conclude with the local authorities in several large cities.

In its Communication *Consumers and the Environment* the Government declares that the action plan will initiate a process whose purpose is to encourage and enable households to assume greater responsibility for the environment and resource management. It also points out the value of statistics as a significant instrument for obtaining knowledge about the environmental influence exerted by households and the environmental impact they cause. Often, statistical data are essential to allow measurements of development over time. It is important that these statistics should be broken down by gender, since this allows information campaigns and other measures to be customized for target groups, when necessary.

97:3 Proposed legislation on water and sewerage systems for ecologically sustainable development

The proposals presented in the final report of the Commission on Planning and Construction, *Review of the Planning and Building Act and the Public Water Supply and Sewerage Act* (SOU 1996:168), have been circulated for comment. The proposals concerning amendments to the *the Public Water Supply and Sewerage Systems Act* (1970:224) are now being processed.

97:4, 5 and 7 Support for improvements in the indoor environment, ecologically sound construction and declarations of health for housing units. Introduction of basic environmental standards and standards for efficient use of resources in new construction and rebuilding on the basis of the proposals presented by the Commission on Building Quality. Taking into account ecological sustainability in the construction sector in connection with a new organization of the state planning, building and housing sector.

The National Board of Housing, Building and Planning has submitted a report on improved ecologically sound construction and declarations of health for housing units called *Building for Health and Environment*. In its report *Building Quality for the Future* (SOU 1997:177) the Commission on Building Quality presented proposals enabling buildings to be constructed,

converted and maintained as resource-efficiently as possible through quality assurance. The Government intends to deal with these matters in a future bill on construction matters.

97:6 Promotion of systems for assessment of the environmental and health impact of construction materials, construction and buildings which can be used as supporting data in describing the consequences of the buildings for ecological sustainability and in connection with Government measures in the construction sector

In the Housing Policy Bill the Government presents various proposals for achieving sustainable development, including investment grants for the building and rebuilding of apartment buildings in residential areas. This grant could be used to finance the extra cost of using technologies that reduce the long-term impact on the environment.

At the EU ministerial meeting on ecological construction and housing in Amsterdam in the autumn of 1997, it was decided to arrange an experts' meeting in order to consider the possibility of introducing national lists/systems for ecologically sustainable construction materials and methods. Sweden offered to arrange this meeting, and the Government instructed the National Board of Housing, Building and Planning to organize an experts' meeting in Malmö on June 10-12, 1998. In the autumn of 1998, the Board will present material describing how different countries deal with these matters.

97:2 and 8 Support for the development of new behaviour among consumers and households. Increasing knowledge about consumption and the environment by giving consumers access to the relevant information.

A revision of the Nordic action programme for the consumer sector is in progress. Sweden urges that the future action plan should set more concrete objectives as regards household-related environmental issues.

In order to disseminate more information on environmental issues relating to consumers the 1998 Spring Economic Bill proposed the creation of a database containing household-related information under the management of the Swedish Consumer Agency. Such a database could be used by individual consumers, information officers, companies and organizations, and also as a teaching aid in schools. The database could also simulate local initiatives, including local investment programmes, and be used for the purposes of in-service training in the retail trade. The Government has instructed the Swedish Consumer Agency to start setting up the database in 1998.

A preliminary study on interactive information concerning environmental impact, which the Government commissioned from the Swedish Consumer Agency and Västra Götaland county administrative board, was presented in the spring of 1998. It proposes an IT-based system for assessment of households' environmental impact.

97:9 Continuing provision of information about the environmental effects of products

In 1998, the Swedish Consumer Agency completed a method study on environmental information to individual consumers and a study of

consumers' opportunities for obtaining environmental product information. The studies conclude that the use of environmental product profiles would be appreciated by many consumers even if they cannot assess the relevance of the information. Discussions are in progress at the Nordic level on a comprehensive evaluation of the Nordic ecolabelling system, the Nordic Swan. The evaluation is to cover the environmental effects of ecolabelling and consumers' knowledge of attitudes to the Nordic Swan. As regards convenience goods, a special investigator has been appointed to investigate the question of consumer information and labelling as a whole (Dir. 1997:151).

97:10 Ensuring a reliable supply of geographical data as an element of the public information service

An infrastructure for the publication of geographical data would be an asset to the process of adjusting to ecologically sustainable development. It is important that the dissemination of such data should be organized with maximum effectiveness in order to ensure environmental protection, efficient use of resources and sustainable development. Parliament has designated the provision of information services a priority government responsibility, with particular reference to the importance of geographical data and information systems (Gov. Bill 1995/96:125, Committee Report 1995/96:TU19, Parl. Comm. 1995/96:282). In its Communication *The Information Society on the Threshold of the 21st Century* (Comm. 1998/99:2) the Government declares that this matter should continue to be a priority issue and that the main objective of efforts in this field should be to encourage the use of information technology.

The Environmental Advisory Council has submitted a report entitled *IT in Environmental Work* (SOU 1996:92) and notes that practically all environmental data have some kind of geographical linkage. In its report *Better Environmental Information* (SOU 1997:4), the Commission on environmental information notes that analyses in geographical information systems can show levels of impact for a specific area, which may be useful in locating business or other activities. The Commission on Catchment Areas has in its final report *Environmental Cooperation on Water Pollution Control* (SOU 1997:155) noted the importance of geographical information systems in the study of catchment areas.

In the 1998 Spring Economic Bill the Government presented a programme to stimulate increased use of geographical data and information systems in the public sector. This programme will run from 1999 to 2001. The cash limit for expenditure area 18 – Community Planning, Housing Supply and Construction – was therefore raised for this purpose by a total of MSEK 28. This investment will cover training for county administrative boards and municipalities, intensification of basic standardization and development of the Swedish National Atlas, the best possible use being made of the possibilities offered by the Internet.

Measures proposed in 1998

98:1 Developing methods for sustainable urban development

In its appropriation instrument of December, 1997 the Government emphasized the need for central government agencies, the National Board of Housing, Building and Planning and county administrative boards in particular, to continuously survey and monitor the progress of the work done by the municipalities on housing, development and land use with a view to the sustainable development of towns and urban environments. According to the appropriation instrument, the Board will also help to ensure that the undertakings made in the UN Conference on Human Settlements in Istanbul in June, 1996 (Habitat II), at which the Habitat Agenda was adopted, are implemented in Sweden. Support is to be given to the municipalities in their efforts to integrate workplaces with housing, and development and land use with other measures aimed at the sustainable development of towns and urban environments in social, cultural, economic and ecological terms.

One conclusion of the Environmental Bill is that the development of methods for achieving community planning aimed at the sustainable development of urban environments should be intensified. The work of the National Board of Housing, Building and Planning on spatial planning methods should help to improve coordination with measures on behalf of increased social welfare and the ongoing local Agenda 21 programmes. Furthermore, closer cooperation should be achieved between the nature conservation and cultural environment sectors.

98:2 Assignment to the National Board of Housing, Building and Planning relating to work on environmental goals

The Environmental Bill proposes that the National Board of Housing, Building and Planning be assigned cross-sector responsibility for the work on environmental goals related to spatial planning and management of land and water resources and sectoral responsibility as regards its other operations. In September, 1998 the Government instructed the Board to prepare a definition of this responsibility. The Board is to cooperate with the Swedish Environmental Protection Agency and other competent central and regional bodies on this task.

98:3 Assignment to the National Board of Housing, Building and Planning related to demolition waste

The Government has instructed the National Board of Housing, Building and Planning to investigate more reliable means of identifying hazardous wastes and disposing of them in connection with demolition. The Board is to submit its report by the end of 1998.

98:4 Competition and quality in the EU construction sector

The European Commission has issued a Communication on improvement of competitiveness in the construction sector (COM(77)9539), which lays down a variety of measures to promote competition, with special reference to quality assurance. Work is in progress in the Government Offices, in cooperation with the construction sector, on the preparation of Swedish positions with respect to the Communication.

98:5 Promotion of research on urban environments

Promoting close and effective cooperation between research in Sweden and in other European countries on urban environments is an increasingly important task. The research area 'The City of Tomorrow and Cultural Heritage' is proposed as a separate activity in the EU's Fifth Framework Programme for Research. The work now being done by the Council for Building Research on the development and coordination of Sweden's contribution to the framework programme in matters relating to urban development and the urban environment will continue.

98:6 Action plan for consumers and the environment

The Government's action plan for consumers and the environment assigned sectoral responsibility to the Swedish Consumer Agency for consumer-related environmental matters, the formulation of sectoral environmental objectives, the inclusion of households in pre-separation systems, further measures with respect to the environmental aspects of product testing, support for local and voluntary activities and active work in international fora. The action plan also includes increased monitoring of environmental arguments in marketing, studies of prices for organically grown food products and information on the environmental properties of motor vehicles.

98:7 Promotion of research on consumers and the environment

Matters related to consumers and the environment will be discussed at a conference arranged by the Nordic Council of Ministers in Norway at the end of 1998. One theme will be: What do we know about households' resources in the light of the increasing need to take environmental aspects into account?

98:8 Continuing support for the introduction of environmental management systems in the agencies that are responsible to the Ministry of the Interior

All in all, 66 agencies, in addition to the Government Offices, are now engaged in the work of introducing environmental management systems as a tool for the integration of environmental factors into various policy areas (see Annex). Ten of these fall within the area of responsibility of the Ministry of the Interior. Network conferences will be organized for these agencies on a continuous basis.

98:9 Assignment to the Agency for Administrative Development concerning the promotion of ecologically sustainable development

In order to make it possible to evaluate the contribution of the various appropriations in expenditure area 18 to the goal of promoting ecologically sustainable development in community planning and construction, and to report on them to Parliament, the Government assigned the task of reporting results to the Agency for Administrative Development. The Agency submitted its report in June, 1998, and this is being used as a basis for the continuing work of developing the reporting of results.

98:10 Stimulating, planning and implementing activities on the threshold of the new millennium

In April, 1998 the government decided to appoint a committee with tasks related to preparation of the millennium shift. It called itself the Millennium Committee. Its tasks include stimulation, on the basis of previous experience and knowledge, of a broad-based discussion of the future focusing on democracy, the equal value of all human beings, income distribution and the environment in the society of the future.

4.13 The Ministry of Environment

The overall goal of the Government's environmental policy is to hand over a society to the next generation in which the major environmental problems have been solved. In the Bill *Swedish Environmental Quality Objectives – An Environmental Policy for a Sustainable Sweden* (Gov. Bill 1997/98:145) the Government proposed that Parliament should adopt a limited number of national environmental quality objectives, which specify the environmental status that is to be achieved within a generation. A parliamentary committee will be appointed for the task of analysing and establishing, together with the competent authorities, the interim goals that need to be set in order to achieve the environmental quality objectives (Dir. 1998:45).

A condition for successful adjustment to an ecologically sustainable society is that efforts are made in all sectors of society. The long-term generation objective and the new structure of environmental policy goals represent a completely new, cross-sectoral approach in environmental policy and are in line with the efforts being made to decentralize environmental work. 24 agencies have therefore been assigned special responsibility for ensuring that progress is made on adjustment to ecological sustainability in their sectors. The Swedish Environmental Protection Agency has been assigned overall responsibility for coordinating and supporting the sectoral agencies in this process. The sectoral agencies' responsibility includes identifying and quantifying the environmental impact made by activities within their area of responsibility, setting goals, on the basis of the national objectives, defining how these activities are to become ecologically sustainable, and concretizing the need of measures to monitor the progress made in achieving these goals and ensuring that the adopted measures are implemented.

The Environmental Bill represents a refinement and a detailed specification of the work on adjustment to ecologically sustainable development that has already commenced. The Bill laid down more detailed guidelines for an ecocycle strategy, chemical policy and international cooperation. The Swedish Environmental Protection Agency and the National Chemicals Inspectorate are among the authorities to which the Government has assigned special sectoral responsibility for ecologically sustainable development (see section 3.1).

Measures implemented and ongoing activities

97:1 Presentation of a draft Environmental Code in the autumn of 1997

In response to the Government's proposals (the relevant Bill was presented in December, 1997), Parliament adopted the coordinated, more stringent and broader environmental legislation on sustainable development set forth in a new Environmental Code (Gov. Bill 1997/98:45, Committee Report 1997/98:JoU20, Parl. Comm. 1997/98:278). The provisions of the 15 most important Acts relating to the environment have been incorporated into the Code. The purpose of the provisions of the Code is to "promote sustainable development, thereby guaranteeing a healthy and sound environment for present and future generations". Furthermore, Parliament has adopted amendments to a large number of legislative measures which govern activities that may have an environmental impact (Gov. Bill 1997/98:90, Committee Report 1997/98:JoU25, Parl. Comm. 1997/98:279). This will clarify how the basic provisions on environmental considerations in the Environment Code affect a large number of sectors.

97:2 Continued development of environmental management systems in government agencies

All in all, 66 agencies are now engaged in this work (see the Annex for a complete list). 25 pilot agencies embarked on this task in January, 1997 and were followed by 40 more agencies in January, 1998. In the spring of 1998 all the ministries also started implementing environmental management systems.

Practically all the pilot agencies have carried out a survey of their internal and external operations with reference to the environment, and the majority have formulated environmental policies and action plans for future work. The work done in 1997 was reported to the Government on March 31, 1998.

Key success factors identified in this work include the management's will to achieve and demand results, the expertise and mandate of the project leaders, the time and resources set aside, the implementation of a relevant environmental survey, and education in environmental matters. Several agencies will be selected in 1999 to start introducing environmental management systems.

The 1997 Spring Economic Bill (Gov. Bill 1996/97:150) specified in Annex 5 that relevant Government Bills in this connection will be accompanied by an assessment of ecological sustainability, and such assessments will be required in the context of future environmental measures.

97:3 A systematic review of the government budget with a view to sharpening its focus on ecological sustainability; the review will be coordinated with the development of environmental management systems in government administration

An initial review of the government budget has been carried out, and this indicates that most budget items are relevant to ecological sustainability. However, the connection may sometimes be indirect and difficult to establish. A condition for ensuring that ecological sustainability measures can be properly monitored in the budget process is that the primary objectives of ecological sustainability are formulated at a more operational level in various

sectors. The assignment of special sectoral responsibility for the ecological sustainability process to 24 agencies should prove useful in this connection (see also section 3.1).

97:4 Presentation of new environmental goals for the 21st century and continuing work on environmental goals in various sectors

The Environmental Bill presented a new system defined in 15 national environmental quality objectives. This is a more systematic and readily understandable approach than the 170 or so goals that have been adopted so far. The 15 environmental objectives are expressed in terms of the desired quality of air, groundwater, the radiation environment, the ozone layer etc. They also relate to the environmental quality of various habitats and ecosystems such as lakes and watercourses, forests and urban environments. The Government also presented a number of interim targets and starting-points for further analysis of these targets.

The fifteen goals formulated in the Bill are: Clean air, High-quality groundwater, Sustainable lakes and watercourses, Flourishing wetlands, A balanced marine environment, sustainable coastal areas and archipelagos, No eutrophication, Natural acidification only, Sustainable forests, A varied agricultural landscape, A magnificent mountain landscape, A good urban environment, A non-toxic environment, A safe radiation environment, A protective ozone layer, and Limited influence on climate change.

The continuing work on environmental quality goals is described below under measures 98:2, 98:3, 98:4 and 98:5.

97:5 Development of indicators for ecologically sustainable development

The Environmental Advisory Council was instructed by the Government to present proposals for green ratios for ecologically sustainable development. At the beginning of 1998 the Council presented its report *Key indicators for Ecologically Sustainable Development* (SOU 1998:15), a first proposal containing 17 key indicators that can be specified using existing statistics. The indicators relate to the three primary objectives of ecologically sustainable development. Their purpose is to give an indication of whether progress is being made towards an ecologically sustainable society and whether such progress is sufficiently rapid. The Council also pointed out the need of further indicators for which the statistical basis must be developed. The Council's proposals have been circulated for comment and a revised proposal on green indicators will be presented in October, 1998. The Government intends to deal with the Council's proposal during the spring of 1999.

Several international organizations are preparing proposals for indicators as a means of monitoring progress towards sustainability, including the EU, the OECD and the UN. Germany, Denmark and the United Kingdom are also developing a smaller number of indicators for monitoring purposes at the national level. In Sweden, the Swedish Environmental Protection Agency is preparing a proposal for a more comprehensive system of indicators for monitoring developments on environmental issues which is linked to the efforts to achieve environmental quality objectives.

97:6 Extending producer responsibility

The Government extended compulsory producer responsibility to motor vehicles as of January 1, 1998 (SFS 1997:788). It has also instructed the National Board of Trade to notify the European Commission of a proposal concerning producer responsibility for electrical and electronic products.

The Swedish Environmental Protection Agency has issued a report (NV report 1998:4892) evaluating the progress made by producers in achieving the levels specified in the ordinances on producer responsibility for tyres, waste paper and packaging (SFS 1994:1236, 1994:1205 and 1997:185, respectively). In accordance with instructions issued in its appropriation instrument the Swedish Environmental Protection Agency will also give an account of the effects of the new producer responsibility for packaging on the design of packaging, resource utilization, transportation and emissions. The Ecocycle Commission has presented a report proposing eventual producer responsibility for all products (1997:19). In its strategy report (1997:14) the Commission proposes short- and long-term goals for resource management and environmentally sound production.

The Government proposed in the Environmental Bill that Parliament adopt the following guidelines: materials and energy must be used as efficiently as possible with regard to all available resources; the use of fossil fuels should be reduced to a low level; the total extraction of biomass must not deplete biological diversity; most products must be materials- and energy-efficient, upgradable and reusable or recyclable in terms of materials or energy.

Greater importance must be attached to the environmental impact of products and the need of efficient resource utilization. In future, therefore, the emphasis should be on the formulation of a coordinated environmental policy specifying requirements for the products that are produced and making producers responsible for the products that are released to the market. A policy for environmentally sound product flows should be formulated at Community level in order to make the necessary impact. Sweden is a driving force in this connection and takes an active part in the efforts now being made by the European Commission to formulate such a policy. Some of the most important tools in this connection are ecolabelling, waste disposal, ecologically sustainable public procurement, extended producer responsibility, product standards and environmental management systems.

97:7 Formulation of a sustainable chemical policy

One of the primary environmental objectives proposed by the Government in the Environmental Bill is that the environment must be free of man-made or extracted substances and metals that can damage human health or biological diversity. The implication of the environmental quality goals is that the levels of substances that occur naturally in the environment must be close to background levels, while the levels of man-made substances must be close to zero. The Government concludes that emissions and leakage of hazardous substances must be reduced in order to attain this goal. The National Chemicals Inspectorate has been instructed to propose interim targets as a step on the way to environmental quality goals and to prepare action strategies designed to achieve these targets. It will present its report on October 1, 1999.

The Environmental Bill also contains the following guidelines for future work on environmental quality goals:

- new products that are released to the market must be virtually free from organic, man-made, persistent and bioaccumulable substances or substances from which such substances are derived;
- new products that are released to the market must be virtually free from man-made substances that are carcinogenic, have genetic effects or cause hormonal disturbances.
- new products that are released to the market must be virtually free from mercury, lead or cadmium or compounds of these;
- metals must be used in such a way that they do not enter the environment in quantities that are liable to damage the environment and human health;
- organic, man-made, persistent and bioaccumulable substances must only be used in production processes if the manufacturer can show that they are not harmful to health or the environment. Permits and conditions pursuant to the Environmental Code will be formulated in such a way as to ensure that these goals are achieved.

The Government intends to take measures to ensure that these guidelines are implemented within 10-15 years. In addition to the new guidelines, limitation and phase-out programmes will be necessary for particular groups of substances that require special measures, for example certain chemicals used in textiles, brominated flame retardants and phthalates and other plasticizers that have, or are believed to have, harmful effects on health and the environment.

97:8 Implementation of ‘Green Job’ programmes

At the beginning of 1998, a ministry publication (Ds 1998:13) clarifying certain matters and explaining the background of the concept ‘green jobs’ was published. It also presented various measures that had been carried out, and their costs and effects, including the Swedish Environmental Protection Agency’s evaluations of environmental and labour market programmes. These measures appear to have had beneficial environmental effects and have also been successful in comparison with other employment programmes. The memorandum also contains proposals for ways and means of stimulating environment-related employment.

Local investment programmes, which are described in chapter 5, represent a further step towards stimulating green jobs.

97:9 Establishment of a research centre for ecologically sustainable development in cooperation with a suitable university/college to provide support for local investment programmes

The Environmental Advisory Council was instructed to study the possibility of setting up a research centre for ecologically sustainable development. In September, 1998, the Government adopted the Council’s proposal that such a centre be established. The centre will be located in Umeå and will have the task, as an independent authority, of supporting research on ecologically sustainable development. One important task will be to support municipalities, industry and business and other interested parties in implementing local investment programmes for ecological sustainability. The centre will encourage contacts between practitioners and researchers and act as

a link between these two groups in order to facilitate access to research findings for practitioners and bring topical issues to the attention of researchers. Another task will be to arrange exchanges of experience between practitioners.

In accordance with additional terms of reference issued by the Government, the Environmental Advisory Council will prepare proposals for the centre's organization, board, budget etc. The Council will report on its assignment in December, 1998. The centre will open on January 1, 1999.

97:10 Review of subsidies that present an obstacle to ecologically sustainable development

The Government instructed the Swedish National Audit Office to conduct a study of the effects of subsidies on ecologically sustainable development and on industrial policy, regional policy and income distribution policy. After consulting the Swedish Environmental Protection Agency the Swedish National Audit Office selected three subsidies, i.e. the transport grant, the aid for peat combustion and the aid for small-scale hydropower. In its report on this study (RRV report 1998:6) the Office discusses how the three subsidies can be improved in order to be more consistent with the need for sustainable development.

In the Environmental Bill the Government concludes that state aids of various kinds should be designed in such a way as to take into account the possibility of achieving ecologically sustainable development. Such aids occur in labour market policy, regional policy, agricultural policy, transport policy and housing policy. The most important thing is to ensure that such aids are not an obstacle to ecologically sustainable development. Wherever possible, they should indeed contribute to such development. In the EU, Sweden should use its influence to ensure that aids are not an obstacle to sustainable development in Europe and, wherever possible, that they are designed in such a way as to contribute to sustainable development. The Government intends to arrange for a systematic review of state aids on the basis of their effects on the process towards ecologically sustainable development and whether changes designed to contribute to such development affect the attainment of other objectives. The main responsibility for this should rest with the sectoral agencies.

97:11 Appointment of a commission for the task of promoting environmentally sound public procurement of goods and services etc.

In the spring of 1998 the Government set up a Commission for Ecologically Sustainable Procurement in order to promote the consideration of environmental aspects in public procurement (Dir. 1998:8). The Commission's tasks include encouraging ecologically sustainable procurement by central and local government, analysing and monitoring compliance with legislation and international agreements, initiating and developing guidelines and methods, disseminating information, experience and examples of excellence, initiating education and seminars for procurement officers and suppliers, and keeping track of the efforts being made in other countries to achieve ecologically sustainable procurement. The Commission will focus on strategically important products and services, since

this is where demands for ecologically sustainable production make the greatest impact.

An initial survey indicates that the products which the public sector considers most important in this respect are office equipment and paper, IT equipment, cleaning equipment and food. In the county councils, medical products are also an important product group. Services in which environmental standards must be met include transport, laundry etc. As regards contacts, environmental aspects are most prominent in the construction sector. The county councils and most municipalities have started to introduce environmentally sound procurement, and some of them took their first initiatives in this area at the end of the 1980s. The situation in government agencies is more varied.

The Commission will complete its assignment in December, 2000.

97:12 Preparation of supporting data for a Swedish position on environmentally sound public procurement in the EU

In the spring of 1998, the National Board for Public Procurement was instructed to clarify the legal situation as regards environmental requirements in connection with public procurement. Its report on ecologically sustainable procurement, on which Sweden's position on public procurement will be based, was completed at the end of March, 1998. According to the Board's report, there is still some doubt as to the possibility of applying environmental criteria in connection with the qualification of tenderers, and in some cases the possibilities are very limited.

Sweden's position paper will contain proposals allowing the specification of environmental requirements with reference to environmental aspects and national economic considerations. It will also show how the type of environmental requirements that are proposed can be compatible with the need for transparency and non-discrimination. If the position necessitates amendments to the relevant EC Directives, draft amendments will be presented.

97:13 Elaboration of strategies for the development of ecologically sound production on the basis of an open dialogue with industry

The Government intends to continue its dialogue with industry with a view to encouraging the use of processes that lead to more efficient use of resources and ecologically sound production. On the Government's instructions, the Ecocycle Commission has evaluated industry's adjustment to ecocycle-oriented production. Its report *Ecocycled Enterprises* (1998:23) was submitted to the Government in June, 1998. It concluded that there is now greater environmental awareness in industry and business and that the focus has shifted from point emissions to the life-cycle environmental impact of products. Increasing attention is paid to chemicals and the problem of wastes. In recent years, market pressure has become the most important factor for adjustment, but statutory provisions still play an important part. Developments are driven mostly by large companies, but medium-sized companies are not far behind; the environmental performance of small enterprises is still unsatisfactory. The Commission concludes that the pace of development is too slow for achievement of the long-term objectives of

sustainable development. Those who make environmental demands and those who meet these demands in industry both need to formulate new strategies.

The Environmental Advisory Council has been instructed to contribute to the elaboration of strategies for the development of ecologically sound production through a dialogue with industry (Dir. 1998:65). The aim of this assignment is to initiate, support and influence developments in industry and to obtain data for political decisions on guidelines and incentives in environmental policy and other matters of strategic significance to sustainable development. The intention is to stimulate enterprises to go beyond the statutory requirements and thus raise the general level of environmental work in industry. It is especially important to analyse the motivation of the enterprises that have made most progress in environmental work and to explore the possibilities of others following in their footsteps. The situation of small and medium-sized enterprises should be investigated. Another task is to analyse various systems of indicators.

The Council will report to the Government in 2000; its report is to include conclusions about appropriate incentives, a presentation of industry's voluntary undertakings, details of the obstacles to and opportunities for development of an ecologically sustainable industrial sector and proposals for future strategies. An interim report is to be submitted in January, 1999 in the form of an organization plan for the various stages of the assignment. Another interim report will be submitted in September, 1999 and will analyse success factors, opportunities and obstacles as regards industry's efforts to adjust to ecological sustainability.

97:14 Initiatives in the EU for an ecologically sustainable Europe (involve several ministries)

Sweden has committed itself to an active role in the EU on behalf of ecological sustainability. On Sweden's initiative, the goal of sustainable development was identified as a priority objective for the Union at the Amsterdam summit in June, 1997. At the same time, the principle of integrating environmental considerations into the formulation and implementation of the EU's policy areas was consolidated. This has improved the prospects of closer cooperation on ecological sustainability in the EU.

Following a proposal by Sweden, the Luxemburg summit in December, 1997 decided to instruct the Commission to prepare a strategy document for the integration of environmental issues into EU sectors. The document was presented at the Cardiff summit in June, 1998. As a result, the European Council adopted its main content and invited the Councils of Ministers of the various sectors to develop strategies for integrating environmental and sustainable aspects into their policy areas. This work is to be monitored in accordance with the guidelines proposed by the Commission and with the help of indicators. In particular, the transport, energy and agriculture sectors were invited to start work on this task and to report at the next meeting of the European Council in Vienna in December, 1998.

97:15 Closer regional cooperation on the environment

In 1998 Sweden holds the presidency of the Nordic Council of Ministers. Sweden is an active president, and one of its two main themes is to initiate

the work of transforming the Nordic countries and the neighbouring region into an ecologically sustainable region.

Sweden plays an active part in the efforts to improve the environmental situation in the North Sea, in particular within the framework of the North Sea Conference, the Oslo-Paris Convention, the EU, the International Maritime Organization (IMO), the Bonn Agreement and the London Convention. These conventions are working to achieve a reduction of marine pollution in the area. Monitoring compliance with the Esbjerg Declaration within the framework of the North Sea Conference is especially important.

Sweden is committed to ecologically sustainable development in the Baltic Sea region within the framework of the Agenda 21 for the Baltic Sea region (Baltic 21), the Helsinki Commission (HELCOM) and cooperation on the common cultural heritage of the Baltic Sea region. Sweden will continue to give investment aid to the HELCOM action programme.

Sweden should seek to ensure that environmental issues are given priority and integrated into the agenda of the Arctic Council, which was established in 1996. Coordination should be improved between cooperation on the Arctic, cooperation on the Barents Sea region and Baltic 21. Sweden is also committed to strengthening the EU's contribution to cooperation in the Barents Euro-Arctic region.

Sweden urges that the priorities and concrete objectives of European environmental cooperation outside the EU, which takes place mainly through the Economic Commission for Europe (ECE) in the Environment for Europe Process, should be more clearly defined. Sweden's view is that the focus should be on regional and sub-regional environmental cooperation and on the states of the former Soviet Union, the Baltic Sea region and the Barents Euro-Arctic region. Project-oriented environmental cooperation with the countries of Central and Eastern Europe and around the Baltic Sea should be intensified in the transport and traffic sector.

Environmental programmes in Central and Eastern Europe, including Russia, have high priority within the framework of the development cooperation assistance delivered by the Swedish International Development Cooperation Agency (Sida) and the Swedish Environmental Protection Agency. Preparations are being made to assist central and regional environmental departments and to provide expertise and assistance with institution-building, the elaboration of national environmental strategies and investments in water and sewage treatment and the energy sector.

97:16 Pursuing issues related to exhaust emission standards and cleaner fuels for motor vehicles in the EU

The negotiations on more stringent emission standards for light vehicles (cars, light lorries and busses) and for motor fuel have now been completed. During the negotiations on emission standards for motor vehicles Sweden's proposal for the introduction in the EU of a common system for quality and producer responsibility for light vehicles, as well as standards for cold starts, was well-received. Negotiations have opened on more stringent emission standards for heavy vehicles. During the negotiations on the quality of fuel for motor vehicles Sweden gained a sympathetic hearing for a reduction of the sulphur content in conventional vehicle fuels by 2000 and 2005.

The European Commission is expected to present proposals in the near future on harmonized emission standards for agricultural and forest tractors. These are expected to correspond to those now being introduced for certain types of large diesel-powered mobile machinery. Sweden is arguing for the extension of these rules to cover smaller machines, including petrol-driven machines.

97:17 Efforts to increase fuel efficiency as a means of reducing carbon dioxide emissions

Sweden is following the Commission's and the Council's preparation of a strategy for emissions of carbon dioxide in the transport sector. In particular, the measures set forth in the Council's conclusions of June, 1996 should be followed up as regards a voluntary undertaking by the European car manufacturing industry, consumer information and the use of fiscal incentives.

97:18 Development of environmental and resource management programmes for specific geographical areas

The national environmental quality goals must be adapted and concretized at local and regional level, and serve as a guide in community planning. This is being implemented within the framework of the tasks assigned to county administrative boards, the Swedish Environmental Protection Agency and the National Board of Housing, Building and Planning.

The Swedish Environmental Protection Agency and the National Board of Housing, Building and Planning have for some time been preparing methods to increase the integration of environmental aspects into spatial planning, particularly in municipal comprehensive plans and the work being done on environmental impact assessments (EIAs). Work continues on the development of criteria and indicators as useful instruments in this connection. The national environmental quality goals proposed by the Government will encourage a common cross-sectoral approach to the objectives of community planning. It should also be possible to obtain useful information by learning from the experience of the Government's investment programme for adjustment to an ecologically sustainable society.

Areas suffering from environmental and management problems at the regional level should also receive attention at the national level in the work on ecological sustainability. Examples are the large archipelago areas regarding which the Government instructed the relevant county administrative boards in December, 1997 to prepare, in cooperation with the relevant municipalities, regional environmental and resource management programmes. In the spring of 1998, the county administrative boards submitted interim reports describing their plans for this work. Reports on these programmes will be submitted by the end of 1999. In December, 1997 additional terms of reference were issued to the Environmental Advisory Council (Jo 1968:A) instructing the Council to follow up and support the work on the regional environmental and resource management programmes and to evaluate and report on the environmental work in these areas as a whole by August 31, 2000. The Council submitted an interim report in June, 1998.

In the Environmental Bill the Government concluded that regional environmental and resource management programmes should be prepared for areas with particularly acute problems in this respect, for example areas that are subject to special rules on account of national interests as regards the management of land and water resources, but also areas where the environmental situation is such that the provisions on environmental quality standards in the Environmental Code should be applied. The Government concludes that in such areas it will be necessary to adjust the national environmental quality goals and adapt the Government's sectoral planning to regional and local conditions. These efforts will be based on the county administrative boards' Strategies for Regional Environment. These programmes should include measures addressing the environmental and resource management problems, analyses of the possibility of applying the existing environmental legislation and of the financial and other resources available for aid for the development of sustainable solutions and an integrated programme for the treatment of the above problems in regional and local planning.

The Government has instructed the Swedish Environmental Protection Agency, in consultation with the National Board of Housing, Building and Planning and the National Heritage Board and in cooperation with NUTEK and the county administrative boards concerned, to prepare a survey of geographical areas where the need of regional environmental and resource management programmes is especially acute in a national perspective. A report on this assignment will be submitted by January 1, 2000.

Measures proposed in 1998

98:1 Review of measures relating to the climate

In May, 1998 the Government decided to appoint a committee representing the parties in Parliament for the task of presenting proposals for a coherent Swedish strategy and an action programme focusing on cost-effective measures to limit and reduce emissions of carbon dioxide and other greenhouse gases. The programme will cover all sectors and all the greenhouse gases included in the Kyoto Protocol, as well as the absorption of carbon dioxide in carbon sinks. The programme will be based on the Parliamentary Resolution on climate and energy policy and Sweden's responsibility for the EU's joint undertaking. The Committee will propose climate policy incentives and investigate the consequences of its proposals for the national economy, including the impact on industry in terms of employment, competitiveness and a regional balance. The Committee will also investigate and present proposals regarding ways and means of increasing industry's participation in efforts relating to the climate and also of increasing the absorption of carbon dioxide in carbon sinks. The Committee will complete its investigations by July 1, 1999.

98:2 Appointment of a parliamentary committee for the task of establishing environmental objectives

In May, 1998 the Government adopted terms of reference (Dir. 1998:45) for a parliamentary committee appointed for the task of conducting a

comprehensive review of interim goals that are necessary with a view to achieving the national environmental quality objectives, with the exception of the goal relating to climate change, in a generation in accordance with the proposals in the Environmental Bill. In the light of the Bill and Parliament's forthcoming decision on it, the Committee will, in cooperation with the competent authorities, analyse the need of interim targets. It will base its investigations on the agencies' reports on the interim targets and measures announced in the Bill, taking into account developments and advances in knowledge during the period of investigation.

The Committee will also evaluate the environmental and economic effects, including the effects on government finances and the national economy, of interim goals and measures proposed by the Government or government agencies, and also submit proposals for further interim goals, where necessary, as a step towards achievement of the national environmental quality goals adopted by Parliament.

The Committee will report on its assignment to the Government by July 1, 2000. A condition for this assignment is that Parliament adopts the proposed national environmental quality objectives.

98:3 Assignment to the Swedish Environmental Protection Agency concerning environmental objectives

In June, 1998 the Government instructed the Swedish Environmental Protection Agency to submit proposals on a continuous basis with a view to enhancing and specifying in detail environmental quality objectives, monitoring the progress made towards achievement and their effects on the environment. As regards several of these objectives the Agency will share responsibility with the National Heritage Board, the National Board of Housing, Building and Planning and the National Chemicals Inspectorate. In cooperation with these agencies the Swedish Environmental Protection Agency will act as coordinator of the efforts directed at achievement of the generation objective and the national environmental quality objectives. The Swedish Environmental Protection Agency will submit a progress report to the Government together with its annual report.

The Swedish Environmental Protection Agency was also assigned a number of other specific tasks at the same time, including the task of proposing new interim goals for action strategies by October 1, 1999 as preparatory material for the parliamentary committee. An important part of this task is to analyse the effects of these proposals on the national economy and government finances, and also to study the cost-effectiveness of these proposals. The Agency will also coordinate the other agencies' work on specifying interim goals for their respective areas of responsibility and support and coordinate the sectoral agencies' and county administrative boards' work of proposing sectoral goals and regional environmental goals. The Agency is also to study the division of responsibilities for the environmental quality goals between the agencies concerned, taking account of cost-effectiveness and other criteria. The Agency will also support and coordinate the sectoral agencies' work on measures and indicators for evaluation of achievement of the sectoral goals. After consulting the agencies concerned the Agency will also submit proposals for monitoring and evaluation systems for the environmental quality objectives and seek to

ensure that information about the work on environmental objectives is disseminated at various levels of society.

98:4 Assignment to the National Chemicals Inspectorate concerning environmental goals

The Government has instructed the National Chemicals Inspectorate, in consultation with the competent authorities and organizations and the parliamentary committee, to propose interim targets for the environmental quality goal relating to a non-toxic environment which is defined in the Environmental Bill as an environment that is free of man-made or extracted substances and metals that can damage human health or biological diversity. The National Chemicals Inspectorate will also assist other agencies that have been instructed by the Government to propose interim targets and the Swedish Environmental Protection Agency in its task of proposing an action strategy for achieving the interim goal, which has been adopted by the Government, of preventing pollution of the Baltic Sea and its catchment area and of the North Sea by reducing emissions and the leakage of hazardous substances in a step-by-step process, the objective being to terminate these emissions and leakages within 25 years (by 2020).

After consulting the competent authorities the National Chemicals Inspectorate will propose action strategies for achieving the other interim targets and assessing the consequences of these strategies for the national economy.

The Agency will submit its proposals for interim targets and measures to the Government by October 1, 1999.

98:5 Tasks of the county administrative boards with respect to environmental quality objectives

With reference to the proposals presented in the Environmental Bill the Government has instructed all county administrative boards, within the framework of the Strategies for Regional Environment, to adapt, specify in detail and concretize, on a continuous basis, 14 of the 15 national environmental quality objectives for their counties. The regional forestry boards are responsible for implementation of the environmental quality objective Healthy-growing forests at the regional level, but they will collaborate with the county administrative boards. The county administrative boards will, moreover, coordinate the work of adapting interim and sectoral goals in their counties together with the other interested parties. The necessary initiatives will be taken in this connection to stimulate the work of achieving environmental quality objectives in various sectors and to ensure that the objectives are taken into account in local and regional community planning. They will also prepare a joint proposal on a regional monitoring system and be responsible for and coordinate, on a continuous basis, the monitoring of progress on environmental quality objectives at the regional level. Cooperation will take place with the Swedish Environmental Protection Agency, the National Board of Housing, Building and Planning, the National Heritage Board, other competent authorities, municipalities, industry and other interested parties.

A situation report will be submitted by October 1, 1999 and after that reports will be submitted to the Government every year on March 1. A

condition for this assignment is that Parliament adopts the proposed national environmental quality objectives.

98:6 Consolidation of local Agenda 21 programmes

In April, 1998 the Government appointed a national coordinator to give further support for local Agenda 21 initiatives and provide a state sector partner for the local Agenda 21 committees. One of the coordinator's tasks will be to disseminate experience of methods used in Agenda 21 programmes and to coordinate the work being done within the framework of local Agenda 21 programmes with efforts at other levels. A special reference group – a *Forum for Ecological Adjustment* – has been appointed to assist the coordinator. Its activities will be closely linked to local investment programmes and the research centre for ecologically sustainable development that will be set up in Umeå in accordance with a Government decision of September 1, 1998.

98:7 Coordinated information on the Government's efforts to achieve sustainable development

The Government is implementing numerous measures aimed at ecological sustainability in various areas, and in order to disseminate information on all these activities in a coordinated manner, the Ministry of the Environment has expanded its information activities in 1998. There will be further intensification of these activities in 1999, inter alia in order to facilitate activities at the local level. Coordination will take place with the research centre for ecologically sustainable development that will be set up in Umeå in accordance with a Government decision of September 1, 1998 and the national coordinator for Agenda 21 programmes.

Information on the work being done on behalf of ecological sustainability will be found at the following website: www.hallbarasverige.gov.se.

98:8 Investigation of environmental policy instruments

In the Environmental Bill the Government stated that the Swedish Environmental Protection Agency should, in consultation with the agencies concerned, investigate whether the existing instruments in certain strategic environmental policy areas help to achieve environmental quality goals in a cost-effective manner. In September, 1998, the Swedish Environmental Protection Agency was instructed to perform this investigation. The Agency is to propose strategic areas where policy instruments need to be analysed from various points of view. In choosing these areas it is to consult the parliamentary committee appointed for the task of establishing environmental goals. The Agency will also submit proposals as to the structure of this work and definition of the areas to be investigated. This task is a preliminary to the larger task of investigating whether the existing instruments in some strategic environmental areas contribute to the achievement of environmental goals in a cost-effective manner. It is to report on its preliminary task by October 30, 1998. The Government will subsequently assign the task of conducting an investigation into policy instruments, in which connection the subject areas and organization will be defined in detail.

98:9 Review of financial resources for environmental research

In August, 1998 the Government instructed the Council for Planning and Coordination of Research, in addition to a first assignment, to review the resources for Swedish research on environmental toxins. Sweden has long had a prominent position in the research in this area. In recent years, the orientation and financing of this research has changed. The Council will review the consequences of these changes, as well as studying the resource situation in order to ensure that the high quality of Swedish research is maintained in the future. It will report in December, 1998.

98:10 Elaboration of statistics and indicators

In the context of the proposals presented in the Environmental Bill the Government has instructed the Swedish Environmental Protection Agency, in cooperation with Statistics Sweden, the Statistics Commission and other competent authorities, to review the public information services in the environmental sector. A programme for this review will be presented by October 31, 1998.

The Swedish Environmental Protection Agency was also instructed to develop, in cooperation with the competent authorities, indicators that make it possible to monitor the distribution of various plant and animal species and their growth in lakes and watercourses and marine ecosystems. The Agency will also, in cooperation with the Geological Survey of Sweden, the National Food Administration and the National Board of Housing, Building and Planning, investigate and submit proposals concerning a system designed to protect groundwater sources in view of their present and potential value for the supply of drinking water. It will report by December 15, 2000.

The Government has also instructed the National Chemicals Inspectorate and the Swedish Environmental Protection Agency to perform an outline study of the accumulation and flows of hazardous chemicals. The purpose of this assignment is to provide data for an assessment of the need of further investigation for the purpose of acquiring more information about, and facilitating the monitoring of, the existence of hazardous substances, their leakage into the environment and public exposure, in the broadest sense, to such substances. It will report by December 15, 1999.

In the Environmental Bill the Government stated that there is a need to improve statistics on material flows. The Government intends to instruct Statistics Sweden, in cooperation with the Swedish Environmental Protection Agency, the National Chemicals Inspectorate and other competent authorities to investigate this matter.

5 Local investments

Local support is essential to the success of integrating the ecological dimension into society. This is one of the conclusions underlying the objectives, principles and recommendations set forth in Agenda 21 and Habitat II.

The 1998 Budget Bill (Gov. Bill 1997/98:1, expenditure area 18, Committee Report 1997/98:BoU1, Parl. Comm. 1997/98:81), which was passed by Parliament, proposed allocating funds to support local investment programmes for the implementation of ecological sustainability. Support will be provided for local investment programmes for two reasons. First, because such support should help to substantially increase the pace of Sweden's adjustment to an ecologically sustainable society; second, it should increase employment. Following the Parliamentary Resolution, MSEK 5,400 was allocated for the period 1998-2000. In the 1998 Spring Economic Bill (Gov. Bill 1997/98:150) the Government proposed an additional allocation to the support for local investment programmes of MSEK 2,000 for the year 2001.

This aid will enable the municipalities, in cooperation with local enterprises, organizations and private individuals, to apply for grants for investments relating to ecological sustainability. The municipalities will act as coordinators and driving forces. The assumption is that the municipalities know which measures are most necessary in their areas. It is their responsibility to inform the parties concerned, to assess the proposals for measures that are submitted, to prioritize and to draft an investment programme on which the municipality is agreed. The municipalities are also responsible for allocating the grants to the investors.

The municipalities whose investment programmes are considered likely to achieve the best results will be given government grants for their investments. The aim is to concentrate the measures so as to ensure that they make a tangible impact in the municipalities to which grants are made. The measures must meet one or more of the following criteria: reduced environmental impact, more efficient use of energy and other resources, increased use of renewable raw materials, increased reuse and recycling, enhancement of biological diversity and more efficient nutrient cycles. Grants may also be provided for educational measures related to the investments.

5.1 Support for local investment programmes in 1998

In the first round of decisions on grants for local investment programmes for the period 1998-2000 the Government made grants to 42 municipalities. In several cases the municipalities are collaborating on measures relating to common environmental problems. The grants made so far total over MSEK 2,300. The investors to whom these funds have been allocated will contribute about MSEK 5,500 out of their own resources. Thus, the total investments directly related to environmental measures amount to about MSEK 7,800. According to estimates made by the municipalities concerned, the

investments should create a total of more than 8,800 jobs on an annual basis (excluding possible displacement effects). These investments are also likely to increase demand for environmentally sound products and services, which should create further jobs in the enterprises that supply them.

The measures for which grants are made relate to many different traditional sectors. About one-third of the total goes to measures in the housing and construction sectors, and about one-fourth to energy-related measures. One-tenth, i.e. about MSEK 250, is allocated, respectively, to decontamination of polluted land areas and to water and nature conservation projects. Support on a smaller scale will be provided for investments in communications.

On average, government grants represent about 30% of the total investment.

Construction and housing

Regardless of whether buildings are used for housing, schools, hospitals, offices or industrial purposes, the way they are planned, built, maintained, rebuilt and eventually demolished is vital to the environment. In the Government's view, it is very important that the technologies and methods used in the construction sector should be improved in order to be consistent with an ecologically sustainable society, which also means that the buildings must have an appropriate indoor environment.

About MSEK 800 out of the aid for local investment programmes that was allocated in 1998 is destined for measures in the urban environment, in particular measures relating to housing. The construction and housing measures include a wide range of programmes in the energy, water, nature conservation and waste disposal sectors, and to some extent biological diversity.

The investment programmes often mention the importance of environmental considerations as regards the choice of materials. Substances that are harmful to the environment or health must be excluded. A large proportion of recycled materials should be used in connection with renovation or new production. Many measures involve substantial improvements in the efficient energy use. Many investments also relate to the local environment, including the establishment of wetlands and ponds to absorb surface water. The most frequent measures in the waste sector involve the installation of systems that facilitate pre-separation of wastes and composting.

Energy

The production of electricity and heat affects the environments in various ways. The combustion of fossil fuels causes emissions of carbon dioxide that contribute to the greenhouse effect, of nitrogen oxides that cause acidification, eutrophication and ground-level ozone, and of sulphur oxides, which cause acidification. The harnessing of new hydropower can cause damage to animal and plant life and destroy the landscape. Nuclear power represents an environmental risk in both the short and the long term.

In order to achieve a sustainable energy system, more efficient use of electricity and heat and an increase in the proportion of renewable sources of energy are essential. However, renewable sources of energy must be used in a sustainable manner. About one-fourth (MSEK 600) of the funds allocated by the Government for local investment programmes is destined for the energy sector.

A large number of measures involve the replacement of fossil fuels or direct electric heating by various types of biofuels. Development of district heating systems is often combined with the introduction of biofuels.

The development of biogas is another common energy measure. Digestion, for example of sludge from treatment plants, food wastes from households and the food production industry and manure and crops from agriculture, is to be developed. Both large- and small-scale facilities will be built, as well as distribution systems and equipment for the conversion of the gas that is produced into motor fuel.

Many measures focus on more efficient use of energy with the help of new and more efficient equipment. Pumps with speed controls, fixed-time control, presence detectors and temperature control of lighting and heat etc., heat recovery and improved ventilation systems are some examples. In several cases, waste heat from industry will be used for district heating systems or electricity generation.

Other renewable sources of energy will also receive support; several solar energy programmes will be implemented.

The transition from fossil fuels to biofuels will reduce emissions of carbon, sulphur and nitrogen oxides. This will reduce the greenhouse effect, as well as acidification and eutrophication. Biogas is a fuel that involves relatively small adverse effects on the environment. The digestion of clean fractions also yields fertilizer that can be used in agriculture. The result is increased recycling of phosphorus and a reduction of landfilled waste.

The communications sector

Emissions of pollutants from the transport sector represent one of the most serious threats to ecologically sustainable development in the form of the greenhouse effect, eutrophication and acidification of lakes and forests etc. New fuels, cleaner vehicles, more efficient transport, enhanced competitiveness for means of transport that have the least impact on the environment and a reduced need of transport will reduce the environmental impact of transport systems.

Measures in the communications sector account for over MSEK 100 of the funds allocated by the Government for local investment programmes. A large proportion of the measures involve the introduction of alternative fuels and better facilities for public transport and bicycle traffic.

The fuels in question are biogas, electricity, ethanol and dimethyl ether. Funds are also allocated for the purchase of vehicles and investment in distribution systems for new fuels.

The measures in the field of public transport involve simplified payment systems, better passenger transfer points and technical measures that will reduce the environmental impact of existing vehicles.

Bicycle traffic will be promoted by the development and improvement of bicycle routes.

Recycling and reuse

A large proportion of waste, both non-renewable and renewable resources, ends up in landfill sites. Recycling and reuse of wastes is an important factor as regards resource management and environmental impact compared with dumping. Pre-separation at source is the key to reducing the proportion of waste that is dumped.

The greater part of the aid, about MSEK 60, allocated to the waste sector will be used for measures to change waste disposal systems and for pre-separation. Moreover, several waste-related measures are included in the housing and construction measures described above.

Facilitating pre-separation of waste is the commonest measure. Many programmes also involve waste collection points of various kinds to facilitate increased reuse and recycling. Some measures involve the testing of new technologies and systems for recycling and reuse.

Decontamination of polluted soil

Many areas, albeit often of limited extent, have been polluted by extremely hazardous substances, including chlorinated organic compounds and heavy metals. These include landfill sites, old industrial sites and areas where factory wastes have been discharged into watercourses and coastal zones. Housing containing PCBs and sewers polluted by mercury are other examples of contaminated areas.

Environmental toxins are degraded slowly or not at all, and they can be enriched in the food chain, which may cause serious damage to ecosystems and health. In order to reduce present and future environmental impact, it is important to take extensive decontamination measures.

Over MSEK 250 has been allocated for measures in this area within the framework of grants for local investment programmes. Government aid has never been provided for this sector on such a scale before. Some of the measures for which aid is provided involve the decontamination of lake or river beds. However, most of the measures involve the decontamination of polluted soil.

The areas in question have been contaminated by local discharges from industry and landfill sites. The substances that must be dealt with are heavy metals, oil and chlorinated organic compounds and PCBs

Water pollution control and nature conservation

Eutrophication is caused by a surplus of nutrients, especially nitrogen and phosphorus. It can cause oxygen deficiency and lifeless areas of sea and river bed. In the long run, vulnerable species may disappear. Phosphorus emissions derive mainly from private sewerage systems, agriculture, industry and municipal water treatment plants, while waterborne nitrogenous emissions mainly derive from agriculture and municipal sewage treatment plants.

Almost one out of ten animal or plant species in Sweden are included in the Species Database's lists of endangered species. Valuable environments for biological diversity disappear. In order to maintain great variation among animals, plants and natural types, it is important, in the Government's view, both to preserve valuable natural environments and to restore some of the assets that have been lost. The aid provided for this sector within the framework of local investment programmes represents a major investment. About MSEK 250 has been set aside for such measures.

Among the measures for which aid is provided are the establishment of wetlands and ponds for the treatment of surface water, wetlands on farmland, improvement and extension of treatment plants, the treatment of landfill sites and leachates, and measures to increase the recirculation of nutrients. Furthermore, several measures are aimed at improving the conditions for biological diversity or increasing the area covered by valuable open spaces.

Adult education

Households have considerable influence on the environment. In some cases, an investment can yield a surplus value if it is combined with educational programmes. Therefore, the Government considers that the investment made in adjustment to an ecologically sustainable society should be supported by educational programmes directly related to the measures that are implemented.

About MSEK 70 out of the aid that has been allocated so far has been provided for education and information programmes. The commonest measures in this area are those relating to building and housing projects. The main target group for information and education programmes is residents, and the subject most frequently dealt with is households' direct and indirect impact on the environment.

5.2 Continuing measures

The Government intends to continue its work on local investment programmes. More than 230 municipalities have declared an interest in receiving grants for local investment programmes from 1999 onwards. The programmes for which grants have already been made will be monitored and evaluated.

5.2.1 Support for local investment programmes in 1999-2001

During the autumn, dialogues will be conducted with a number of the municipalities that have submitted declarations of interest. The purpose of these dialogues is to improve and clarify future applications.

Municipalities which apply for grants for programmes from 1999 onwards must submit applications to the Government by November 15, 1998

5.2.2 Monitoring and evaluation

The programmes for which grants have been provided will be evaluated on an annual basis. The Government intends in this connection to instruct county administrative boards and the Government Offices to carry out the necessary monitoring and control measures. The Government has also instructed the Swedish National Audit Office to evaluate local investment programmes. Some programmes for which grants have been made also include a monitoring and evaluation component with the assistance of scientific institutions. The results of the evaluation will be of great interest to many parties, and the Government therefore considers it important that measures should be taken to disseminate information about evaluations.

Annex: Environmental management in government administration – participating agencies

Work started in January, 1997

The National Institute for Working Life	The Swedish Environmental Protection Agency
The National Board of Housing, Building and Planning	The Swedish National Board for Industrial and Technical Development
The National Board of Fisheries	Örebro County Police Authority
The National Institute of Public Health	The National Heritage Board
The Defence Matériel Administration	The National Social Insurance Board
The National Chemicals Inspectorate	The Swedish National Audit Office
The Swedish Consumer Agency	The Swedish International Development Cooperation Agency (Sida)
Asptuna penal institution	The Swedish Rescue Services Agency
Malmö penal institution	The National Radiation Protection Institute
The National Land Survey	Stockholm University
Lund University	The Geological Survey of Sweden
Gävleborg County Administrative Board	The National Road Administration
Örebro County Administrative Board	

Work started in January, 1998

The Labour Court	The Royal Institute of Technology
The National Rail Administration	The Swedish Coast Guard
The Aeronautical Research Institute	Linköping District Court
The Council for Planning and Coordination of Research	Linköping University
The National Fortifications Administration	The National Food Administration
The Defence Research Establishment	Dalarna County Administrative Board
The National Rural Development Agency	Norrbottnen County Administrative Board
Göteborg University	Stockholm County Administrative Board
The University College of Gävle-Sandviken	Södermanland County Administrative Board
The University College of Karlstad	Mid-Sweden University College
The National Agency for Higher Education	Mälardalen University College
The Swedish Competition Authority	The Museum of Natural History
Örebro correctional service	The Swedish Patent and Registration Office
	Dalarna County Police Authority
	Swedish Travelling Exhibitions

The Office of the Prosecutor-
General
The National Board of Forestry
The Swedish Meteorological and
Hydrological Institute
The Swedish Geotechnical
Institute
The Swedish Immigration Board
The Swedish State Railways
The Swedish Nuclear Power
Inspectorate

The National Agency for
Education
The Swedish University of
Agricultural Sciences
The Swedish Board for
Accreditation and Conformity
Assessment (SWEDAC)
Umeå University
The National Board for Youth
Affairs
The Swedish Road and Transport
Research Institute

Ministry of the Environment

Extract of minutes of Cabinet Meeting held on October 1, 1998

Present: Prime Minister Persson, chair, and Ministers Hjelm-Wallén, Peterson, Freivalds, Wallström, Tham, Åsbrink, Schori, Andersson, Winberg, Ulvskog, Sundström, Lindh, Johansson, von Sydow, Klingvall, Åhnberg, Pagrotsky, Östros, Messing, Engqvist

Rapporteur: Lindh

The Government adopts Communication 1998/99:5 *A Sustainable Sweden – Implementation and Continuing Measures to Promote Ecologically Sustainable Development.*