1. Sustainable consumption and production

Concrete actions taken and specific progress made in implementation

Although Sweden does not have a specific action plan for SCP, a number of concrete measures are taken to change unsustainable consumption and production patterns in various areas such as agriculture, transport, product development and waste management/recycling, building/housing, but also linked to health issues (smart food/physical activity). The focus continues to be on products and production. Recent studies from the Swedish Environmental Protection Agency and elsewhere show, however, that measures must also be taken on the demand side to achieve good results.

Lessons learned

Sweden wishes to highlight the following areas in particular as central to continued work on sustainable consumption and production:

* Legislation continues to play an important role in efforts to make articles and services environmentally sound, but should be combined to a greater extent with *economic instruments*. By internalising environmental costs and increasing the use of economic instruments, more powerful incentives are given to producers and consumers to change their behaviour in the short and long terms.

* To achieve sustainable consumption and production patterns there is a need for
technological development, but the switch is progressing too slowly, particularly in the housing sector. At the same time, efficiency improvements are counteracted by a simultaneous increase in consumption. It is therefore very important to also work on *behavioural changes*. Sweden and other developed countries should additionally strengthen technology transfer to developing countries (leapfrogging).

* Greater knowledge and clearer information on the *contents of products* and
their *environmental performance* is important to provide incentives for environmentally sound product development and to enable consumers to make environmentally sound choices. It is therefore important to obtain data on environmental impact over the whole of the product's lifecycle and to develop clear and effective systems for reporting this information. Among other things there is a need to develop information on chemicals in articles.

* It is important that *green public procurement* makes more of a breakthrough in Sweden, the EU and globally. This is an instrument for increased sustainable consumption and production whose impact is greatly dependent on public-sector actors.

* Efforts must be expanded to switch to sustainable lifestyles/sustainable consumption. For this purpose there is a need not just for information and training but for a number of measures by central government in particular to make it easier for consumers/households to behave sustainably. There is a need for example for effective physical planning in which the infrastructure makes sustainable housing, travel and good opportunities for recycling possible.

* The impact of our consumption in other countries is an important aspect that should no longer be ignored. This information is very often lacking when the total consumption and environmental impact of countries are calculated, with the result that the picture is not complete. Our consumption can create jobs and increased wealth but also have an adverse social and environmental impact.

* Wastage of food in the value chain results in unnecessary losses of water and energy. In developing countries this wastage is largely due to inefficient methods of production, poor-quality and time-consuming transportation and storage of products. In developed countries there is substantial wastage in the actual handling of food products in shops and households.

* The involvement of industry continues to be important. Companies have great responsibility to supply the market with sustainable products (environmental and social aspects). Environmental initiatives should be expanded to cover the whole or the greater part of the value chain. This requires greater cooperation between companies and their suppliers. A number of actors have acquired a more important role, such as the retail trade and media/advertisers who have a great impact on the consumption and lifestyles of households.

Recent trends and emerging issues

A number of studies both in and outside Sweden show that new technology and knowledge and product development (the supply side) are not sufficient for the switch to sustainable consumption and production. There is also a need for change on the demand side – there has to be demand for sustainable products and services. System changes, new business models, new ways of planning our communities and also

courageous decision-makers and creative entrepreneurs are needed for this to be achieved.

Major constraints and challenges
A great challenge is to view the economic crises as an opportunity for sustainable development. A major constraint in SCP work is the lack of understanding of the role SCP plays in mitigating climate change and in contributing to a green economy and reduced poverty.

2. Sustainable consumption and production

Generic issues relating to the inclusion of SCP in national policies

Inclusion of SCP in development planning
The Swedish Environmental Protection Agency has worked for 15 years on development cooperation (financed through development assistance), where the focus is on developing the institutions and regulations of partner countries. Development cooperation is largely demand-driven, and there is no direct demand yet for cooperation relating to sustainable consumption and production. But as the development cooperation work has to contribute to "fair and sustainable global development" and the countries are supported in their efforts to utilise natural resources in a sustainable way, some of the projects relate to work on sustainable production.

An example of how work on sustainable production is included in development cooperation is the project initiated in September 2006 between the Swedish Environmental Protection Agency and the Chinese Ministry of Environmental Protection (MEP). An exchange of experience has taken place between the Swedish Environmental Protection Agency and MEP with the aim of increasing MEP's capacity and competence to use various policy instruments to promote the development of environmentally friendly enterprise and environmentally sound products, as well as in particular improving voluntary commitments in the form of a special system of awards for companies that go further than legislation requires. The Swedish Environmental Protection Agency has also drawn up recommendations for ways in which MEP can further develop its efforts to make industry environmentally sound, for instance by improving relations with both regional and local environmental authorities and with industry, improving the implementation of legislation and increasing public participation. MEP is working on the development of an implementation plan to show how it intends to proceed with the recommendations. Implementation of the recommendations is expected to contribute to reduced emissions and more environmentally sound products.

Inclusion of SCP in national strategies, policies, laws, regulations, and guidelines

Sweden has not devised any particular national strategy or action plan for sustainable consumption and production (SCP). Decisions have instead been taken to integrate aspects of SCP into other strategies, political proposals and government communications, bills etc. in a number of different areas such as transport/infrastructure, forestry and agriculture, climate, national environmental objectives etc. There is an interdepartmental working group to discuss and offer suggestions on current SCP issues nationally, in the EU and internationally. There is also an internal working report in the Swedish Government Offices that presents various measures particularly in the areas of food, transport and building/housing, as well as proposals for new measures. The intention is to use this document to integrate SCP aspects when new government bills, communications etc. are presented. Sweden considers this to be a relatively successful strategy as SCP is a very clear interdisciplinary issue and concerns a number of different ministries and policy areas.

Green public procurement policies, laws and regulations

Environmentally sound public procurement is a market-based, powerful instrument in efforts to guide society towards long-term sustainable consumption and therefore production. Environmental requirements in public procurement can contribute to strong competitiveness for Sweden in future markets with strict environmental requirements. In addition, it can act as a driver in speeding up the development of environmental technology, which is also judged to be a future market. The Government presented Sweden's first action plan for green public procurement in 2007.

The Swedish Environmental Management Council endeavours to contribute to sustainable development by supporting companies and public administration in its environmental work in a strategic and cost-effective way. With three principal tools and services, the Swedish Environmental Management Council offers guidance on sustainable procurement, environmental management and environmentally related product information. The Swedish Environmental Management Council has received a boost to its income of around SEK 10 million in 2007 and SEK 6 million in 2008 and 2009. In 2008 the Swedish Competition Agency presented a document on environmental requirements, and the Swedish National Financial Management Authority has trained authorities that enter into framework contracts in the area of green public procurement.

With effect from 1 February 2009, government agencies may only purchase green cars that additionally fulfil stringent road-safety requirements. When

the government agencies procure taxi travel or hire cars, it is also green cars that have to be chosen.

An example of an initiative at regional level is Stockholm County Council, which has had an extensive programme for its procurement ever since 1990 with a view to phasing out hazardous chemicals as such and in the products it buys, for example plasticisers in gloves. There are examples of suppliers having changed their production so that they can continue to sell to the county council.

Instruments for sustainable consumption

Many initiatives have been taken over the years to reduce the environmental impact of our consumption. A number of products have been made more environmentally sound and energy-efficient. At the same time the volume of consumption has risen, which means that the environmental benefit achieved per unit has been largely offset by increased volume. The challenge is to deal with the environmental impact of the growing demand for goods and services. The supply must become environmentally sound in order to achieve sustainable consumption patterns, but it is also important that changes in consumer behaviour in the direction of a more sustainable lifestyle are brought about. The Swedish Environmental Protection Agency is working to develop and evaluate instruments for sustainable production and consumption focused on the ecological dimension. The significance of consumption for sustainable development has increasingly come into focus in recent years.

Awareness-raising programmes/campaigns on SCP

Knowledge of and access to good information are essential if consumers are to be able to make environmentally sound choices and in the longer term alter their behaviour. Activities to raise awareness of the importance of sustainable consumption and production patterns in different target groups has been conducted by a number of different actors in Sweden: non-governmental organisations, municipalities, county councils and government agencies. Some examples of ways in which the Swedish Environmental Protection Agency works on the facts-based dissemination of information with the aim of informing the public are given below.

Climate information

Demand for information on climate change and climate measures has increased in recent years. Several Swedish government agencies communicate the climate issue in their particular areas of responsibility on behalf of the Government. The Swedish Environmental Protection Agency has worked on climate information over a long period, the aim in recent years having been to raise the level of knowledge of the causes and

consequences of climate change, disseminate the latest research findings on the topic, highlight ways of reducing greenhouse gas emissions and increase understanding of the adjustments that will be necessary in society in the longer term for sustainable development. This has been done for instance through newsletters, climate information on the Internet, press releases and the annual conference Klimatforum.

The "Climate and Consumption" project was conducted at the Swedish Environmental Protection Agency in 2008 with the focus on adopting a comprehensive approach and producing new facts about the significance of Swedish consumption for the climate issue. One of the aims of the project was to make facts about the climate impact of consumption available to the public. Studies have attracted strong interest, and information has been disseminated at more than ten seminars nationally and internationally, Since 2002 the Swedish Environmental Protection Agency has conducted surveys of attitudes and knowledge which show that since the surveys began an increase has taken place in the public's commitment to and interest in the issue of climate change.

Energy efficiency

An energy efficiency campaign (www.blienergismart.se) in which several government agencies take part was launched in 2007 to increase knowledge of energy-efficiency measures in Swedish households and to highlight that every single initiative is significant.

The information is primarily disseminated by participation in central and local events. The follow-up made in 2007 shows that the information campaign has resulted in increased knowledge of the concept of energy efficiency and that households are taking measures to reduce their energy use more. The follow-up also showed that the principal driving force in reducing energy use was economic and not environmental.

Battery collection

Another example of a successful information initiative are the battery collection campaigns. In conjunction with the entry into effect of a new Batteries Ordinance in 1997, and with the objective of all batteries being collected, the Battery Collection Project (Batteriinsamlingen) began as a cooperative venture between the Swedish Environmental Protection Agency, the Swedish Association of Local Authorities and Regions, Swedish Waste Management and the Swedish Battery Association. The Battery Collection Project's campaigns aim to raise the level of knowledge and awareness among consumers of the Batteries Ordinance, batteries and their environmental impact. The information has been disseminated among other ways through major campaigns in the media and through the

Battery Collection Project's collection tours around the country. The campaigns have had a clear effect on consumers' knowledge of batteries, and have led to an increase in rate of collection. It is estimated that 60-70% of non-environmentally hazardous batteries were collected in 2006. Breaks in the campaigns have shown a sharp decline in awareness, knowledge and behaviour, and it is therefore important to have regular information. Since Sweden has introduced producer responsibility for batteries from the beginning of 2008, responsibility for collection, sorting, recycling and information now rests with the producers.

The information brochure "How to Burn"

An example of the dissemination of information on a smaller scale aimed at a
specific target group is the information brochure "Elda rätt" ("How to Burn"). Emissions from small-scale wood burning contain harmful and carcinogenic substances and pose a health problem in Sweden. Most of the emissions arise as a result of incomplete combustion. The information brochure "How to Burn" has been produced to inform home-owners about wood burning and cost-effective measures to reduce emissions.
The brochures provides households with information on the purchase and installation of wood-fired boilers and advice and tips on more efficient and environmentally friendly burning. Unfortunately there is no evaluation showing what effect the information has, but there is great demand for the brochure and a new version is being prepared.

Policies and/or infrastructure to support citizens' choices for responsible consumption of products and services, including consumer information tools

Consumers are a heterogeneous group with different preferences and different circumstances with regard to changing their consumption patterns. There are therefore several difficulties in designing effective instruments aimed at consumers. To begin with, it is important to understand the significance of consumption for the environment, but knowledge of what guides consumers' behaviour is also important.

Instruments for environmentally smart and resource-efficient consumption

A project conducted by the Swedish Environmental Protection Agency in 2008 studied how Swedish household consumption influences global greenhouse gas emissions.
Emissions due to Swedish consumption are found to be 25 per cent higher than greenhouse gas emissions in Sweden. Private consumption accounts for just over 80 per cent of total consumption-related emissions. The activities of greatest significance for greenhouse gas emissions are linked to

transport (car and air travel), housing (heating and use of electricity) and foods (meat consumption). It is principally in these areas that measures and instruments are important if we are to reduce greenhouse gas emissions.

A study has been made in the project on the climate impact of consumption of the requirements that need to be met in order to influence behaviour in a climate-smart direction. Household behaviour in relation to instruments has also been examined in the research programme SHARP (see p. 13). The results from both these sources provide an important fount of knowledge for continued work on reducing the environmental impact of households. Some of the following conclusions can be drawn from these two reports on the design of instruments aimed at consumers:

Problem awareness, the perception that what one does has significance, social impact and reasonable sacrifices are factors that influence the willingness of households to take personal responsibility for the environment. It is therefore important to clarify the links between behaviour and lifestyle with an environmental impact and convert this into readily available information, as well as highlighting examples of best practice.

Although environmental awareness, and thus the moral standard, is high among households, SHARP points out that there is a limit to what can be achieved with individual responsibility. Collective measures that facilitate environmentally friendly behaviour, such as investments in infrastructure and physical planning, are therefore of great significance.

There is a need for a combination of information-related and economic instruments to bring about quicker changes in behaviour.

Economic instruments for sustainable consumption

The production and consumption of products and services today takes place to a great extent without taking account of the socioeconomic costs it gives rise to in the form of harm to the environment and human health. The purpose of economic instruments is to include in the calculation these adverse effects that arise when the article or service is produced, used and finally disposed of, which means that it becomes economically worthwhile for companies and households to take account of the environmental impact of products and services. Some successful examples of Swedish economic instruments are the various taxes on fuel.

Sweden at present has three principal taxes on fuel: energy, carbon dioxide and sulphur tax. The purpose of the energy tax and the tax on carbon

dioxide is to internalise the external costs of carbon dioxide emissions. Both taxes lead to a reduction in the use of fossil fuel, and greenhouse gas emissions consequently also decline. The sulphur tax is aimed at reducing the use of fuel with high sulphur levels. The evaluations made show that the taxes have met their purpose and greenhouse gas and sulphur dioxide emissions have fallen sharply since the taxes were introduced.

An alternative to using an environmental tax may be to subsidise a more environmentally friendly alternative for a period in order to create greater demand. The green car rebate of SEK 10,000 introduced in 2007 is an example of such a subsidy. The purpose of the green car rebate is to encourage private individuals, when buying a new car, to choose a fuel-efficient vehicle or one that runs on renewable fuels. The rebate has been successful and has contributed considerably to the current situation where more than one in three new cars sold is a green car. Because the rebate is considered to have fulfilled its purpose, it comes to an end on 30 June 2009. To provide a continued incentive to purchase green cars, the Swedish Government has proposed that these cars should instead be exempt from vehicle tax for five years from the time of purchase.

Another example of a subsidy is the conversion grant introduced in January 2006 to encourage owners of detached houses to replace oil-fired boilers with pellets, heat pumps or district heating. It was intended that the grant would be available for four years, and a total of SEK 450 million had been earmarked. As applications for a total of SEK 460 million had already been received after 11 months, the application period was terminated early. The effectiveness of this instrument is, however, judged to be low as it is only seen as leading to a speeding-up of development and does not ultimately lead to more conversions taking place.

Ecolabelling

There are several independent and reputable ecolabels in Sweden aimed at providing consumers with clear environmental information about products and services, while boosting environmentally sound product development. There is a challenge for ecolabelling in providing consumers with useful and reliable information in a purchasing situation where several different environmental aspects, which sometimes clash, have to be taken into account.

The Swan is the official Nordic ecolabelling scheme and is today one of the best-known brands in the Nordic Region. The vision of the Swan ecolabel is a sustainable society with sustainable consumption. On behalf of the Government, SIS Miljömärkning pursues Swedish work on the Swan and also on the EU's official ecolabel the EU Flower. In the spring of 2009

agreement was reached on a revised regulation for the EU's Flower ecolabel. The aspiration is for significantly more products than at present to feature this label and for consumer awareness of the label to increase. A revised ecolabel is one of several measures in the package for sustainable consumption and production presented by the European Commission in the summer of 2008.

The Swan, which is largely self-financing, has developed criteria for 66 different product groups where articles and services are examined on the basis of their environmental impact throughout their lifecycle, from raw material to waste. Development is driven by constantly revising and raising the criteria. The number of Swan licences in the Nordic Region is approximately 1430, and there are around 900 in Sweden (in 2007). This can be compared with 25 product groups with 473 licences for the EU Flower in those countries that are involved in the EU Flower. According to the climate investigation of the Swan ecolabel conducted in 2005 many of the Swan label criteria are relevant to greenhouse gas emissions. It was found, however, that there were product groups for which more requirements could be laid down. Greater focus has been put on the climate impact of goods and services in the strategy for 2008-2010, and climate impact is one of the key aspects assessed when a product or service is to be ecolabelled under the Swan scheme. Product groups with a great environmental impact, where labelling can lead to significant improvements, have been included in recent years. An example of such a product group is vehicle fuels, where the Swan ecolabel was introduced in 2008.

The evaluation of the Swan conducted in 2008 shows that the level of public trust in the Swan is high and has continued to increase over the years. The evaluation also shows that the criteria are significant for the environment and that they have improved since the previous evaluation. According to an international study that included 200 different labels, databases and product lists, the Swan was judged to be one of the most reliable systems of all in measuring the environmental performance of products.

“Good Environmental Choice” is another label for environmentally sound products and services where the criteria are based on a comprehensive perspective, from production to waste, and requirements are set for the raw materials and chemicals used in production. “EU ecological production” covers agricultural products and foods produced and certified according to rules set forth in Council Regulation (EC) No 834/2007, which came into force on 1 January 2009.

The KRAV label is another established labelling system in Sweden covering the environment, animal welfare, health and social responsibility, and applies to organically produced food. KRAV complies with EU rules and also contains supplementary rules. Another labelling scheme is the Swedish Seal, which guarantees that food raw materials and flowers that are labelled have been produced and grown on Swedish farms where strict requirements are met with regard to safe foods, good animal welfare, environmental responsibility and open landscapes. KRAV and the Swedish Seal have now been working to develop qualitative climate criteria. KRAV has decided to integrate the climate criteria for different product groups into its ordinary labelling, while the Swedish Seal scheme has decided instead to make the climate criteria an addition to its established labelling.

There are also other initiatives to indicate climate impact. Since 2008 there have been climate declarations, a quantitative indication of carbon dioxide equivalents. Such declarations have been developed for chicken, hulled grain and flour and are given as kg carbon dioxide equivalents per kg product. There are further initiatives for quantitative labelling, and a British standard and an ISO standard are in preparation.

Environmentally smart food choices

The production and consumption of foods has a significant environmental impact. In a study from 2006, it is estimated that foods and beverages are the cause of 20-30% of several different environmental parameters in private consumption, while the contribution to eutrophication is around 50%. Meat, meat products and dairy products are regarded as particularly significant.

The National Food Administration in cooperation with the Swedish Environmental Protection Agency, the first authority in Europe to do so, has drawn up proposals for dietary advice which in addition to health aspects also takes account of the climate and environmental impact of foods. Environmental considerations relate primarily to the environmental quality objectives Reduced Climate Impact, A Non-Toxic Environment, A Varied Agricultural Landscape, A Rich Diversity of Plant and Animal Life, A Balanced Marine Environment and Flourishing Coastal Areas and Archipelagos, but also the strategy on Non-Toxic and Resource-Efficient Ecocycles. Before the advice is put into practice in the country, Sweden will inform other EU Member States and the Commission through a notification process and give them an opportunity to present their views.

SCP in national priority areas

In future development characterised by continued globalisation, increasing consumption and greater dispersal of hazardous substances it will become

increasingly difficult to achieve the Swedish environmental quality objectives whose fulfilment is heavily dependent on what happens in other countries (in particular A Non-Toxic Environment and the climate and eutrophication objectives).

Attention is drawn in the Swedish Environmental Protection Agency's proposals for the national action strategy for non-toxic and resource-efficient ecocycles to the need for factual information on how Swedish consumption affects the state of the environment both nationally and internationally, as well as to the need for an analysis of how European and international work on sustainable consumption and sustainable lifestyles can contribute to attaining national and international objectives. There is also demand in the strategy for continued development of instruments linked to international labelling of articles with regard to their content of substances that are hazardous to the environment and health. The strategy also points to the need for follow-up measures so that environmental impact can be measured over time (climate, energy use, hazardous substances) as a consequence of Swedish consumption. The strategy identifies the food sector and the building, property and civil-engineering sectors as focal areas for the next four years.

Inclusion of measures and policies to improve the environmental and social impacts of products

The Swedish Environmental Protection Agency has been working to reduce the environmental impact of products since the mid-1990s. Producer responsibility was introduced at that time for selected product groups, which by setting requirements for recycling in particular is intended to reduce the environmental impact at the waste stage, but also in other parts of the lifecycle. The lifecycle perspective is highlighted as a key principle, and a policy framework of instruments and measures to minimise the environmental impact of different parts of the lifecycle was adopted in 2001: Integrated Product Policy (IPP). IPP emphasises the importance of combined consideration of environmental impact in different phases of the lifecycle and of involving key actors in the product chain and its networks.

However, since 2002 the Swedish Environmental Protection Agency has not undertaken any combined policy work to reduce the environmental impact of products in consultation with key actors on the basis of a lifecycle perspective. The focus has instead been on continuing to develop a selection of instruments, for example ecolabelling, public procurement and environmental management systems as well as for the area of waste management, which are judged to be of great significance in attaining the Swedish environmental objectives. Several of these also make a substantial contribution to breaking unsustainable consumption and production

patterns, and the aim is to gradually strengthen the lifecycle and consumption perspective in Swedish environmental objective efforts.

Over the period 2003-2008 the Swedish Environmental Protection Agency funded a research programme (FLIPP, see p. 13) focused on product-related instruments and ways in which these can be combined on the basis of a lifecycle perspective to more effectively reduce climate impact, for example, and improve the resource efficiency of products. The programme also analyses difficulties and opportunities with an increased lifecycle perspective among companies and authorities. A general conclusion drawn from the programme is that a smooth flow of sustainability information relating to the chemical content of articles and the environmental impact of products and services between different actors in the product chain is necessary to enable the environmental impact of product and service systems to be reduced. As most product chains are global, there is a need for global cooperation to make product data available. Another conclusion from the programme is that environmental legislation on products has played a crucial role for the environment, but that legislators to date have taken too much account of trade rules. The programme's researchers feel that legislation will continue to play a decisive role, but needs to be combined with other types of instruments and measures.

GRI reporting for state-owned companies
The Government in 2007 decided on new guidelines for external reporting for state-owned companies, which mean that with effect from 2008 these companies have to present a sustainability report in accordance with GRI (Global Reporting Initiative), which represents international guidelines on sustainability reporting.

Eco-design programmes
The EU's Ecodesign Directive came into effect in Sweden in May 2009 through a Swedish law on ecodesign aimed at promoting efficient energy use and low environmental impact for energy-using products. The Swedish Energy Agency is responsible for implementing the Ecodesign Directive in close cooperation with the Swedish Environmental Protection Agency and the Swedish Chemicals Agency, among others. The focus has been on the aspect of energy use in the implementation measures that have been taken to date. It ought also to be possible for requirements to be set for the content of hazardous chemicals and recycling to enable the full potential of the Directive to be utilised.

Programmes to integrate sustainability in distribution/retailing
Trade, in the form of importers, exporters and distributors, is an important link between consumers and producers and therefore fulfils an important

task in passing on and disseminating knowledge on the environmental impact of products to consumers and waste actors, as well as laying down requirements for suppliers and producers. As many actors are involved in this chain, cooperation between actors is important, leading to the establishment of dialogues across sector boundaries, and actors can work together towards common aims that are difficult to achieve separately. The Government has an opportunity to enter into contracts or agreements to make it possible and easier for companies to take environmental and social responsibility.

Retailer Forum within the EU

The Retail Forum was presented by the Commission in July 2008 as part of the EU Action Plan on sustainable consumption and production and sustainable industrial policy. The Forum aims to reduce the environmental impact of the retail sector and its supply chain, promote more sustainable products and better inform consumers about 'green' purchasing opportunities.

Participants will share best practice, discuss how to promote sustainable consumption and tackle barriers that hinder it, and obtain scientific information from relevant bodies to help evaluate environmentally sound products.

The rationale behind the Forum is that retailers are in a position to promote more sustainable consumption through their own actions, through their partnerships with suppliers, and through their daily contact with European consumers.

Membership of the Forum is voluntary and open to all retailers who join the Retailers' Environmental Action Plan (REAP) which includes many company-specific environmental commitments.

The Forum will meet every quarter starting in April 2009.

"Swedish" participants to date are IKEA, ICA (via Royal Ahold) and Lidl. Altogether there are around 25 companies according to the Commission list.

Future trade

The dialogue project Future Trade was initiated in 1998 as a result of the Government's instruction to the Swedish Environmental Advisory Council to devise sustainable strategies in dialogue with the business community.

Grocery chains were one of two selected areas. Seventeen companies were involved in the process of devising a common vision and overarching aims for sustainable trade in groceries by 2025. Under the direction of the Ministry of the Environment, an agreement was reached at the end of 2003 between 12 companies (grocery companies, producer companies, transport/communication companies) a municipality, two regions and the Government, and was embodied in a document of commitments with seven sub-groups.

The implementation phase for the dialogue project Future Trade began in 2004. The Swedish Environmental Protection Agency was commissioned by the Government to set up a secretariat whose tasks were to coordinate, follow, evaluate and inform about the work and results of the project.

Workshops and seminars were held under the project at which joint ventures were devised to tackle practical problems and bring about environmental improvements. In addition, a continued dialogue was established between the participants which increased understanding of different needs and problems across sector boundaries. Four projects with differing orientation were carried out. One project resulted in a guide showing a model of how to identify and prioritise hazardous substances in articles at the time of purchasing. The guide and model have been used and disseminated both among the actors and among others as it is practical and easy to assimilate, and in addition facilitates a dialogue with purchasers. Another project tested whether evening distribution could produce a favourable result in environmental and economic terms. The test shows a clear reduction in time spent and a reduced estimated environmental impact, but if evening distribution is to be successful the business owners too must be in favour of a change. A method to enable the benefit of selling organic products to be presented in the annual report was devised in one of the projects. The fourth project brought together practical experience gathered in e-commerce. The projects were felt by the participants to be positive, partly because they also led to increased understanding between the public sector and the business community, as well as to knowledge transfer and cooperation. The Future Trade project has now been completed.

Links with spatial planning and sustainable city policies

In the national action strategy for management of land, water and the built environment, attention is drawn to the need for environmentally sound spatial and physical planning in order to achieve regional sustainable development. As a result of the planning of large infrastructure projects being based on the environmental quality objectives, there are good prospects for creating good environmental quality in several respects, at

the stage of both construction and administration of infrastructure projects. A good example of this is the Hammarby Sjöstad district in Stockholm, although it has proved more difficult in the planning of large road projects, such as the Förbifart Stockholm bypass.

State investment aid

The state investment aid schemes LIP (local investment programmes) and Klimp (climate investment programmes) have been important initiatives in Sweden in promoting and stimulating investments that contribute to sustainable development at local and regional level in the whole environmental area, while at the same time boosting employment and economic growth.

The Swedish Parliament in 1998-2002 set aside SEK 6.2 billion in aid for LIPs, the largest investment ever made in ecological sustainability in Sweden. The purpose of the aid was to increase the speed of the switch-over to a sustainable society with the assistance of the municipalities. The aid was unique as it was up to the municipalities to identify the local environmental problems and apply for money for the solutions they themselves considered effective. In 2002 LIP was replaced by Klimp, whose programmes were to be focused on projects that lead to reduced greenhouse gas emissions and/or reduced energy use. Decisions on the last grants were taken in 2008.

Altogether the two investment aid schemes are estimated to generate environmental and climate investments totalling just over SEK 24 billion. Just over 2,700 projects have been granted aid, and the principal implementers are municipalities and companies. The investment programmes are estimated to reduce annual greenhouse gas emissions by the order of 2 million tonnes of carbon dioxide equivalents, while annual energy use in Sweden is reduced by 3.3 TWh.

The projects under LIP and Klimp have also contributed to creating new sustainable districts, such as Hammarby Sjöstad in Stockholm. The environmental footprint in Hammarby Sjöstad is 30-40 per cent lower than in an average district built in the 1990s. When the district is completed, half the energy used will be produced from sources such as solar cells, solar panels and fuel cells. The quantity of energy supplied to the buildings has decreased as a result of individual metering of heating, water and gas. In addition to significant environmental effects, the investment programmes lead to greater collaboration in local environmental activities through work on a collective investment programme. As part of its efforts to pass on experience and best practice, the Swedish Environmental Protection Agency has built up a database containing all projects.

R&D incentive or support provided
The objective of a sustainable Sweden means that long-term changes in society and environmental issues have to be placed in a wider context. The solutions therefore have to be sought not just in natural science but in an interdisciplinary and multidisciplinary approach in economics, law and other social-science disciplines.

SHARP – basis for formulation of environmental policy for households.
In 2003 – 2008 the Swedish Environmental Protection Agency financed a multidisciplinary research programme in which the role of households in environmental policy was analysed. Under this programme values and attitudes, as well as obstacles and drivers linked to the environmental activities of households in the everyday situation have been studied. The researchers have also attempted to clarify when different environmental policy instruments can be effective and perceived as legitimate from the perspective of households. Activities that have been studied are separation of refuse, car travel and purchase of ecolabelled products. On this basis conclusions have been drawn on how environmental policy should be formulated and what instruments are effective in changing household behaviour in a more environmentally friendly direction. (www.sharpprogram.se).

FLIPP – basis for lifecycle-based decisions for government agencies and companies
Over the period 2003 – 2008 the Swedish Environmental Protection Agency funded a research programme with the aim of developing a basis for whether, when and how central government can contribute to reducing the environmental impact of products at all stages of the lifecycle. An important underlying principle is that no authority or global organisation has control over all stages of a product's lifecycle and that necessary changes cannot be achieved without all the actors in the product chain contributing. The results of the programme are summarised in a synthesis of knowledge on what instruments can be combined on the basis of a lifecycle perspective and a book that describes challenges and opportunities in efforts to reduce the environmental impact of production and consumption. Textile products and electronic products and their global network relations are analysed in particular. (www.iiiee.lu.se/flipp).

CPM (Centre for Environmental Assessment of Product and Material Systems)
For just over ten years, the Chalmers University of Technology and some large Swedish industrial partners have collaborated in the framework of a competence centre with the aim of preventing the environmental impact of products by strengthening Swedish expertise in the area. The focus has

been on the development and application of LCA methodology and data quality (www.cpm.chalmers.se). This activity, which has principally been financed by the government agencies NUTEK and VINNOVA and the participating companies on a 50-50 basis, will come to an end in the spring of 2009, but it is hoped that the cooperation between academia and business can continue in some form in this area. A substantial rise in the adoption of a lifecycle-based approach and use of LCA and other environmental system analyses in industry can be noted over the time the centre has been in operation. This is important, as global companies are best placed to influence the total environmental impact of products by developing new innovative products, imposing environmental requirements on suppliers and also influencing large consumer groups by marketing environmentally sound alternatives.