Sustainable food in Sweden

Introduction
Providing a growing world population with food and drinking water is a major challenge. Food production will have to increase globally to meet the growing demand due to population growth and changing consumption patterns driven by improved living standards. It is essential that the environmental performance of food production is improved, with regards to its climate impacts, to pressures on the terrestrial and aquatic ecological systems, to the utilization of natural resources such as land, minerals, and water, and to the protection of public goods, for example bio-diversity.

The overall objective for Sweden’s food-related policies is an environmentally, economically and socially sustainable production and a consumption that reflects the demands of the consumers. Through sustainable development we can ensure food security so that environmental values are protected.

All work by the Ministry of Agriculture is led by a vision of sustainable development. The vision is to create the conditions for using resources without using them up. The Ministry of Agriculture’s political activities realises this vision through three overall objectives:

- A dynamic and competitive business sector throughout the country, characterised by openness and diversity;
- An eco-efficient and resource-efficient green sector that plays a key role in Sweden’s energy production;
- A green sector distinguished by concern, responsibility and high ethical standards.

This paper provides a brief overview of the vision using resources without using them up.
**Policy principles and roles**

The Government stresses that goods and services produced and consumed should have as little negative impact as possible with regard to human health and the environment. Producers are responsible to make sure that food and food production are safe and do not pose threats to the environment, to people’s health or to the well-being of animals. The Government needs to assist with appropriate levels of controls and supervision. The Government is also responsible for correcting market failures, and provide producers and consumers with incentives in order to find optimal, sustainable market-based solutions.

Over the past years, consumers have taken increased interest in sustainability of the food they buy and eat. Consumers’ influence in food production through their demands and their interest in sustainable food is an important tool on the path towards sustainability.

Trade policy should contribute in a positive way to the overall efforts for a sustainable development. Trade liberalization as such can have a positive effect. Trade promotes the economic growth needed to finance actions for sustainable development. But there is also another side to the trade and sustainable development nexus, the emerging risks of “green protectionism”. Going forward, it is important that the policy response does not result in new trade barriers. On the contrary, effective solutions are most likely to emerge under conditions of free trade. A crucial aspect of sustainability is to better integrate developing countries into the world trading system. A major trade restriction for developing countries, but also for small and medium-sized enterprises in developed countries, is the lack of institutional and technical capacity to handle the variety of standards, certification and labelling schemes. Sweden tries in several ways to help overcome such shortages. The harmonization of existing national standards, certification- and labelling schemes or the development of new international schemes can also contribute to avoiding unnecessary trade restrictions.

Globally there are many different types of climate labelling and climate declarations schemes. They are initiated by government agencies, multinational and national corporations, business organizations and NGO’s. One important example is the development of the ISO standard on carbon footprints. Also private organizations, such as KRAV and Svenskt Sigill, are working within labelling schemes to facilitate consumers’ choices of more sustainable food. National standards should not pose unnecessary trade restrictions.
Swedish Environmental Objectives
The Swedish Parliament stated in 1999, that within one generation Sweden’s most significant environmental problems are to be solved. The responsibility is shared among different stakeholders and levels of decision making in society. The Environmental Quality Objectives system is built around 16 areas such as Good-Quality Groundwater, Thriving Wetlands and A Varied Agricultural Landscape and involves strategies and various policy instruments to meet the goals. (The Swedish Parliament has not ranked the sixteen national environmental objectives. They are all of qual importance.)

Measures at the national level should be supplemented with active efforts by Sweden to promote environmental considerations in international decisions, since various directives at the EU level, for instance, have implications for the Swedish environmental objectives.

Environmental quality determines the preconditions for food production and food quality whereas food production, and indirectly also food consumption, influence the quality of the environment. Ecosystem services such as good soil and water quality are preconditions for the production of safe high quality food.

While food production always has an impact on the environment, the impact may be positive or negative. Working with Environmental Quality Objectives includes both promoting the good impacts, such as preserving ecosystem services or landscape values, and reducing the bad ones, which may be for example eutrophication or greenhouse gas emissions. Reducing food waste throughout the food chain is important with regards to several of the Environmental Quality Objectives.

The Swedish Rural Development Programme
The overall objective of Sweden’s rural policy, set out in the Swedish Rural Development Programme, is to promote economically, ecologically and socially sustainable development in rural areas. This encompasses sustainable production of food, creation of rural employment opportunities, and sustainable growth. The natural and cultural values present in the agricultural landscape are to be safeguarded, and the negative environmental impact is to be kept to a minimum. Rural policy in Sweden is closely connected with environment policy and the national environmental quality objectives connected to agriculture, fisheries and forestry. This will primarily involve efforts to promote long-term, sustainable production and use of natural resources in agriculture and forestry, contributions to growth and employment,
promotion of knowledge and skills acquisition, and efforts to facilitate the transformation of energy policy.

Food production with added value is considered as a key area in the programme, in line with the vision of Sweden as the new culinary nation and the vision using resources without using them up. This might e.g. comprise:
- Local, regional and/or small-scale production and processing in the food and other sectors is an important component in the search for enhanced business activity in rural areas deriving from agriculture and forestry, etc. regional or traditional quality production may constitute a part of this.
- The national and international market for organic production can be further developed.
- Large scale Swedish food production with high value-added features, e.g. food safety, animal welfare, environmental standards.

Measures within all axis of the Swedish Rural Development Programme are used, e.g. the measure for adding value to agricultural and forestry products in axis 1, measures for skills acquisition in axis 1 and 3, measures for tourism in axis 3. On a local level, the Leader-initiative is important. There is a strong environmental focus in the programme which gives a basis for production of high-quality and resource efficient food production. Generally, Swedish agriculture has started early to adjust to the consumers’ demand for safe and ethically acceptable food, also including sustainable production.

The Swedish Fishery Programme
The overall objectives of the Swedish programme for the fisheries sector aims at promoting an ecologically, economically and socially sustainable fisheries sector in Sweden. This encompasses creating a balance between fish resources and fleet capacity, increasing profitability in the fisheries sector, promoting employment in rural areas in relation to the fisheries sector, decreasing the negative environmental effects brought about by the fisheries sector and ensuring the sustainability of both the environment and natural fish stocks.

Food production from the fisheries sector with added value is, like in the Swedish Rural Development Programme, considered as one among other important element in the vision of Sweden as a new culinary nation. It should:
- contribute to long-term employment in the aquaculture and processing sectors, by developing sustainable aquaculture and by enhancing the
competitiveness of fisheries products on the market, mainly through productive investments.
- support measures of common interest with a broader scope than measures normally undertaken by private enterprises and which help to meet the objectives of the Common Fisheries Policy. Special focus is placed on promotion of marketing measures and development of fishing ports and landing sites. For the small-scale fishery, ports and landing sites is essential to be able to continue with the local production.
- facilitate the sustainable development of fisheries areas through initiatives by local fisheries groups.

To achieve the above objectives, support will be given in the framework of local development strategies for the diversification of activities, the development of fishing tourism and recreational fishing together with increasing value added to fisheries products.

In order to achieve high-quality and resource efficient food production from the fisheries sector there is a strong environmental focus in the program. Sustainable fish resources are the basis for fish as food as well as a basis for wild-life and fishery experiences.

**Culinary Sweden – the Governments food strategy**

Culinary Sweden is a vision aiming for 2020 about creating jobs and sustainable economic growth predominantly through investments in food production, cooking excellence combined with tourism. There are five key areas: meals in the public sector, primary production, food processing, food tourism and restaurants. The goal is to develop each and every of these five key areas.

Starting from a strong position including safe and salmonella free food with a good reputation and the success story of many talented Swedish chefs who are at the vanguards when it comes to innovation and functional foods, Sweden has a growing food industry of major importance to the rural areas. Entrepreneurial spirit, a vivid countryside, natural conditions, and cultural heritage, create regional food cultures and a local identities. Animal health and welfare are always a primary focus, along with organic farming, environmental approaches and sustainable food production in both cultivated and wild landscapes and in the sea. The Government has decided different programs to encourage innovation and to develop and disseminate knowledge about food production that is climate-friendly, effective in resource use, have low environmental impact and that is provided by efficient logistics and waste management.
In Sweden, food within the public sector is served to not only within institutions such as hospitals but also both to school children and elderly. School children get their lunch for free from the age of 6 to the age of 18. Good eating habits are essential for children to be in good health, perform well in school and get a good start in life. School means also provide the opportunity for children to learn about sustainable food consumption and how to reduce waste to a minimum. Healthy and tasty food is essential for the elderly’s well-being when they are no longer able to cook for themselves.

**Improved production methods and waste management**

Sustainability is key to the Swedish food production. It requires a sustained effort throughout the whole food chain from many players in both the private sector and the public sector.

In 2006 the (previous) Government in office presented objectives for organic production and consumption in the public sector and they have remained. By 2010, 20 per cent of the utilized agricultural area shall be certified as organic and 25 per cent of the consumption in the public sector shall be organic.

High ethical standards and concern for animal health are key values in animal husbandry. This is reflected by the strong concern for animal welfare among the public, and by the strict animal health regulation in Sweden.

To increase sustainability the whole complex food chain, including primary production and the processing, packaging, transportation and storage of products as well as the treatment of food waste must be looked at systematically to minimize waste.

Besides measures to decrease the amount of waste, actions to take care of waste from the food chain should be prioritized. In this context techniques for production of biogas and composting are of growing importance in Sweden and used both in private establishment (often farms), as well as in municipal plants. Techniques to take care of waste and by-products up stream the food chain, e.g. animal by-products (ABPs) from slaughter-houses and fallen stock, are important from a climate impact point of view. Two Swedish companies have developed a process where ABPs are incinerated for energy production. This is more efficient from an energy point of view than conventional rendering techniques with production of meat and bone-meal and fat.
The consumers’ interest and behaviour
Over the past years, consumers have taken increased interest in the sustainability of the food they buy and have asked for advice on how the household can help reduce environmental impacts. In this regard two projects are pursued. There are also numerous private initiatives in the area, and the government welcomes such market-bases solutions.

a) Environmentally smart food choices
In Sweden the National Food Administration (NFA) together with the Swedish Environmental Protection Agency (Naturvårdsverket) has put forward proposals concerning “Environmentally smart food choices” and also discussed the proposal with the Swedish Board of Agriculture (Jordbruksverket), and the Swedish Board of Fisheries (Fiskeriverket). The aim is to complement the NFA’s nutritional advice (on food) with advice to consumers on how to make environmentally sustainable smart choices.

In an introductory text, consumers are reminded that the environmental effect of production can vary considerably between and within countries and among individual producers.

The NFA’s basic priority is health. Fortunately, the choice of nutritious food can be combined with choices that are also good for the environment. However, there are situations in which consumer choices that benefit a certain environmental objective at the same time might have no positive or even a negative effect on another objective.

On the basis of studies from the Swedish University of Agricultural Sciences (SLU) and the Swedish Institute for Food and Biotechnology (SIK) the NFA summarized a number of conclusions regarding the environmental effects of food production and consumption.

“Environmentally smart food choices” are formulated with regard to six groups of food: meat (beef, lamb, pork and chicken), fish and shellfish, fruits, berries, vegetables and leguminous plants, potatoes, cereals and rice, dietary fat and water. The material is a mixture of information and concrete advice. Recommendations are given in relation to six environmental objectives. The material is focused on factors such as the use of plant protection products, effects on plant and animal life and on the agricultural landscape and, also on transport. The recommendations may be revised as knowledge evolves in the future.

Multiple targets that are related to food and the environment make it difficult, if not impossible, to make food choices which benefit all
objectives at the same time. Recommendations and information are presented in a way which enable various choices that each in their own way may benefit the environment. The choices are not ranked, but presented as alternatives. It is up to the consumer to decide which aspects to prioritize through his or her food choices.

The “Environmentally smart food choices” have gained much attention within the country as well as abroad. The proposal has also been notified in accordance with Directive 98/34/EC, and is currently being reviewed. It has proved to be challenging to transform multifaceted reality into user-friendly and precise advise. The ambition is that the “Environmentally smart food choices” can assist consumers by providing information about the complexity of sustainability of food consumption.

Environmental issues have become increasingly important in policy and in society. The current proposal provides consumers with a unique opportunity to make a difference in the food area through their choice. It may also contribute to a more general awareness of environmental questions and of the fact that measures for protecting the environment can be integrated in all human activities.

Experience shows that this kind of consumer advise requires vigilance due to the risk of scientifically unjustified advise favouring domestic markets and products.

b) Waste of food in private homes and in schools
Food waste at household level is substantial. As much as one third of the food brought home to the kitchen may be not consumed. As a result of the conference Climate Smart Food arranged during the Swedish presidency a platform was established for research on food waste. The NFA works on a project regarding waste of food in private homes and in schools to improve the knowledge regarding the reasons for the waste in order to be able to take suitable measures to improve the situation.