

# Sweden And The Environment – Sucesses And Lessons Learned For Other Countries

**Ann Marie Bolin Pennegård**



*Concern for the environment and how to best address environmental and climate problems, nationally and internationally, have long been a priority for successive Swedish governments and continues to be so today.*

The policies are characterized by close cooperation between all parts of Swedish society; from consumers and researchers to businesses and environmental organisations. The aim is to be a modern society that is environmentally sound and based on sustainable resources. One of the major challenges has been and continues to be how to pursue a growth-friendly policy that takes account of climate change.

## Action to reduce climate impact

Sweden has made a radical change from oil to non-fossil based energy sources, including biofuels, which has led to a reduction of its greenhouse gas emissions by more than 40 per cent since the mid-1970s. Between 1990 and 2006, emissions fell by almost 9 per cent. At the same time, GDP increased by 44 per cent. But much remains to be done. The current government has therefore committed one billion Swedish kronor (approximately 170 million USD) for the period 2009-2010 to national climate and energy initiatives. In addition, heavy investment is being made in energy efficiency measures related to environment, forestry, agriculture and energy.

## Initiatives in the energy sector

In the energy sector it has been possible to make major reductions in carbon dioxide emissions by radically reducing the use of oil for electricity production and heating. One aim of energy policy is to promote efficient energy use and cost-effective energy supply that meets high standards for

protection of health, the environment and the climate. Because the Swedish electricity system is linked to the European system, more effective use of electricity and the provision of renewable electricity production in Sweden can also partially contribute to lower emissions of carbon dioxide in other countries too.

Some measures being taken in the energy sector today:

- Municipal energy and climate advisory services and information, training and regional action are important measures for reaching consumers and small entrepreneurs. Local and regional measures for energy efficiency are being strengthened in the period 2008–2010. These measures include an assignment to all county administrative boards to develop regional climate and energy strategies in 2008.
- Measures to facilitate the development of wind power include the provision of special financial support for planning in municipalities and regions. Initiatives are underway to encourage the technological development and market introduction of wind power.

- To speed up the expansion of wind power, a national network for wind power will be established, with the Swedish Energy Agency as its hub. This is aimed at supporting regional nodes for knowledge and information and opportunities for local and regional development via wind power.
- Since 2005, a Programme for Energy Efficiency has been underway for energy-intensive industry. In exchange for a company conducting systematic work for improving energy efficiency, it is exempted from tax on the electricity used in its production.

### Initiatives in buildings

Improving energy efficiency in buildings makes it possible to reduce the need for energy for heating, and this can lead to a reduced use of fossil fuels and the conservation of other energy resources. The potential of energy-efficiency improvement is enormous when it comes to buildings. The Swedish government provides numerous financial incentives to private house owners in order to encourage them to install and use

energy-efficient windows and heating systems, including biofuel and solar heating.

### New action for sustainable cities

Sweden also pursues policies to promote sustainable cities and communities. The ambition is to bring together the state, the business sector and local authorities in a national platform to create examples of areas in Sweden that demonstrate cutting-edge technology for sustainable housing solutions and visions that have been realised in blocks, neighbourhoods or local communities. One of the aims of this initiative is to encourage urban development projects that help improve the environment and reduce climate impact, and that facilitate the export of Swedish environmental technology.

In April 2008, the Swedish Embassy in Indonesia, together with local and regional partners, organised a one-day seminar on the subject of urban challenges – “Sustainable Cities – Challenges for Indonesia and Sweden”. The need for a sustainable and holistic approach to urban planning was

the focus of the seminar and the concept "Symbio City" ([www.symbiocity.org](http://www.symbiocity.org)), which is a new developed concept based on the previous concept Sustainable City, was presented.

The participants of the seminar were government officials, academics, business sector representatives, local governors, and NGO's. The seminar spawned interesting discussions and many important issues and challenges were raised. A crucial ingredient in the work for sustainable cities is the importance of cooperation and exchange of experience. The Embassy expects that the seminar will stimulate further discussions and result in continued dialogue and co-operation between Sweden and Indonesia in this field.

### **Environmental technology initiative**

Measures to develop environmental technology are designed in consultation with business and industry, in order to focus on promoting competitiveness in the field of environmental technology. The initiative aims at increasing the opportunities for

Swedish exports in the field of environmental technology with a longer-term focus on small and medium-sized businesses.

### **Action in the transport sector**

The transport sector is the largest source of greenhouse gas emissions. One of the main challenges facing Sweden is to adapt transport to climate concerns. Sweden is by European standards a large country (450,000 km<sup>2</sup>), extending over long distances. The country cannot cope without cars, but car travel must not contribute to increased emissions. The challenge is how to have a transport sector that has a decreasing impact on the climate. Step by step taxes, regulations and economic instruments will be developed that favour environment-friendly choices, both in Sweden and at the EU level. Among the initiatives taken are a green car rebate to stimulate demand for fuel-efficient cars and cars that run on alternative fuels; congestion charges in major cities, expansion in the number of biogas stations; green fuels such as ethanol and other biofuels are exempt from tax and reinforcement of second-generation biofuels

under way. Sweden has a good chance of positioning itself as a leading nation in the work of developing the second generation biofuels of the future.

### **The climate tax package**

In December 2007, the Swedish parliament approved implementation of a climate tax package that comprises a total of more than 3 billion Swedish kronor (approximately 500 USD) in higher energy and climate taxes in the budget bill for 2008. For consumers, this means a total cost increase of SEK 0.29/litre petrol. Energy tax was also increased for diesel oil. In total, energy taxes gives the Swedish state an annual revenue of almost 10 billion USD. As such, it can provide an alternative to energy and oil subsidies used in many countries, especially in the developing world, if these revenues are used to alleviate poverty.

### **The public sector takes the lead**

The public sector has to set an example for companies and the public and accelerate developments. One

action taken by the Swedish government is to tighten the requirements for the share of environmental cars in public procurement and leasing of cars by the central government from 75 per cent to 85 per cent. In addition, at least 25 per cent of emergency vehicles have to be green vehicles. Stricter environmental requirements are to be introduced for public procurement. The public sector should also take a leading role concerning improvements in energy efficiency. The Swedish government has furthermore decided to pay compensation for emissions from government offices' air travel. Compensation is paid via UN-controlled Clean Development Mechanism (CDM) projects, an investment in emission reductions in Brazil, for example.

### **Ambitious climate and energy efforts in the European Union**

With an increasingly integrated European Union, and transnational problems requiring transnational solutions, the EU plays a very important role in Swedish environmental policy. In the EU Sweden is pressing for an ambitious climate policy. The EU heads of state and government

have decided to reduce greenhouse gas emissions by 20 per cent by 2020 compared with 1990 levels. The EU will also continue to drive for a commitment by industrial countries to cut their greenhouse gas emissions by something in the order of 30 per cent by 2020. If an international agreement can be reached, the EU will undertake to reduce emissions by 30 per cent by 2020. The EU also wants the industrialised countries to collectively reduce their emissions by 60–80 per cent by 2050 compared with 1990 levels.

The European Union has also adopted two binding goals for renewable energy. Twenty per cent of EU energy consumption is to come from renewable sources by 2020, and biofuels are to account for at least 10 per cent of total fuel consumption. In addition, by 2020, the EU is to achieve the goal of improving energy efficiency by 20 per cent.

In January 2008, the European Commission presented a climate and energy package. An important part of this package is how much each member country must reduce its emis-

sions by 2020 for the EU to succeed in achieving the climate targets established by the European Council. The proposal includes the emissions that are not covered by the European Emissions Trading Scheme (ETS). For Sweden, the proposal means that greenhouse gas emissions are to be reduced by 17 per cent compared with 2005 levels. Negotiations have begun on the various parts of the package, aimed at a decision being taken at the beginning of 2009.

### **Greater international climate cooperation**

The climate issue is global and requires measures in all countries. Sweden can show other countries that high rate of growth can be environmentally sound and based on sustainable resources. This means being a fossil-free, environmentally driven economy in rapid growth.

Sweden is working actively on developing the project-based mechanisms of the Kyoto Protocol: Joint Implementation and the Clean Development Mechanism in global climate cooperation. These are acting

mah tangga yang tercermin dari tersedianya pangan yang cukup, baik jumlah maupun mutunya, aman, merata, dan terjangkau” Sementara itu PBB mendefinisikan ketahanan pangan sebagai berikut: *“Food security exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”*. Dari kedua pengertian tersebut nampak bahwa “ketersediaan pangan” menjadi tujuan utamanya.

Fakta di lapangan pun merefleksikan pengertian tersebut. Sejak “runtuhnya swa-sembada pangan di pertengahan akhir 1980-an, pemerintah telah menempuh berbagai “cara pintas” untuk mencapai tingkat ketersediaan tersebut yaitu dengan cara mengimpor bahan pangan dari luar negeri baik secara langsung maupun tidak langsung. Yang dimaksud secara tidak langsung disini adalah mengimpor bahan-bahan yang terkait dengan bidang pertanian seperti benih dan pupuk. Dampak dari kebijakan tersebut adalah meningkatnya tingkat ketergantungan pangan terhadap pihak asing. Dengan kata lain, kedaulatan pangan telah menjadi korban dari ketahanan pangan.

Pertanyaan yang kemudian timbul adalah sejauhmana Indonesia telah mempersiapkan dan membangun kedaulatan pangan? Jawabnya, belum sepenuhnya dibangun dan dikembangkan, paling tidak untuk dua alasan. Pertama, sejak awal pemerintahan orde baru kata “kedaulatan pangan” memang tidak menjadi prioritas. Pemerintah lebih menekankan istilah ketahanan dibanding dengan kedaulatan pangan.

Dalam UU 7/1996 sama sekali tidak disebut kata kedaulatan pangan. Secara tidak langsung, pasal-2 dari UU tersebut memang mengarah ke kedaulatan dengan menyatakan “Pembangunan pangan diselenggarakan untuk memenuhi kebutuhan dasar manusia yang memberikan manfaat secara adil dan merata berdasarkan kemandirian dan tidak bertentangan dengan keyakinan masyarakat.” Bila kemandirian identik dengan kedaulatan, maka fakta yang ada di lapangan pun menunjukkan bawa kedaulatan masih jauh dari kenyataan.

Berbagai faktor memang telah menjadi “pemicu sistemik” atas meningkatnya impor pangan yaitu harga, hama dan penurunan luas lahan (akibat dikonversi untuk pemukiman

dan kawasan industri). Menurut Departemen Pertanian pada tahun 2006 terjadi penurunan produktivitas 7,5% dan 18,64% pada 2007. Angka tersebut berbanding lurus dengan menurunnya luas panen dari 621.541 ha (2005), menjadi 580.534 ha (2006) dan 464.427 ha (2007). Impor kedelai pun melonjak 21,5% yang diindikasikan oleh kalangan DPR-RI sebagai akibat adanya kar-tel.<sup>1</sup>

Salah satu fenomena yang perlu di-waspadaai adalah impor pangan secara tidak langsung, yaitu ketergantungan petani terhadap bibit dan pupuk dari luar negeri. Walaupun pemerin-tah telah menyatakan bahwa ketahan-an nasional dalam pemenuhan kebu-tuhan beras telah mencukupi dan produksi nasional telah mencapai hasil yang sangat menggembirakan (laju pertambahan beras saat ini melebihi laju pertambahan penduduk) namun perlu dipertimbangkan, apakah pe-menuhan kebutuhan beras tersebut sepenuhnya merupakan hasil dari dalam negeri? Produksi memang telah meningkat dengan signifikan na-

mun perlu dipertimbangkan bahwa benih padi hibrida yang ditanam ti-dak sepenuhnya dari dalam negeri. Dengan tidak mampu mengembang-kan benih sendiri, kemandirian pe-tani akan semakin merosot karena petani tidak dapat menanam hasil padinya.

Untuk mendukung langkah tersebut para petani telah ditawarkan dengan pemberian subsidi pembelian benih hibrida hingga 50%. Subsidi ini memang kepada petani tetapi uang-nya pergi ke luar negeri (untuk pem-belian benih).

Langkah ini tampaknya tidak berja-lan seperti yang diharapkan karena munculnya sikap penolakan dari be-berapa pihak. Sebagai contoh, salah satu kepala dinas pertanian di Jawa Timur, mengaku kesulitan menolak peredaran benih padi hibrida, oleh karena itu dia tetap melaksanakan program tersebut namun dengan cara mengurangi jatah budidaya benih dari 5.000 ha menjadi hanya 100 ha saja. Itu pun hanya sebagai percontohan atau sampel. Jadi, kegiatan tersebut seolah-olah hanya dilakukan sebagai syarat telah memenuhi program dari pusat. Beberapa daerah lain juga telah menyatakan menolak keberadaan

<sup>1</sup> Situs Menko Kesra, 22 Januari 2007, [www.menkokesra.go.id/content/view/6955/39/](http://www.menkokesra.go.id/content/view/6955/39/)



as concrete projects for reducing greenhouse gas emissions and contributing to sustainable development. Cooperation with developing countries is a particularly important part of long-term global work to address climate change. About 1 million USD will be spent on projects in developing countries with rapidly increasing emissions.

The Swedish government has also taken an initiative for an international Commission for Climate Change and Development. The Commission's tasks are to present proposals for how development assistance can be 'climate-proofed' by integrating risk reduction and adaptation to climate change in the development and poverty reduction plans of poor countries. The results will be presented in the spring of 2009.

Sweden will play an active role in persuading the world's countries to agree on a new climate treaty by 2009 at the latest. Sweden will hold the Presidency of the EU in the six months of 2009 when decisions on a new global climate agreement beyond 2012 will be taken. The EU – and therefore also Sweden – will most

likely have an important role to play in leading negotiations to a successful conclusion.

### Sweden and Indonesia

Sweden has cooperated with Indonesia in the field of environmental protection for almost ten years. Currently the programmes are in the field of water and sanitation, including solid waste management, which has focused on the strengthening of local and regional capacity. In future years, it is foreseen that there will be an increased focus on environment and climate in our cooperation with Indonesia, in an actor-driven cooperation with the aim to mutually benefit both countries.

Recently, the Swedish city of Borås and its university have embarked upon a cooperation programme in the area of development of technology and research on waste refinery with Yogyakarta regional municipality as well as with Gajah Mada University. As part of this collaboration there are currently eight Indonesian students studying this topic at the University of Borås. □