

# SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

(THE TEN-YEAR FRAMEWORK OF PROGRAMMES)

### 1. Overview

In 2006, in order to meet the requirements of the Swiss economy and households, around 360 million tonnes of materials were extracted, consumed or displaced in Switzerland or abroad. This represents an increase of 17 % compared with 1990. On the other hand, the increasing sales of organic products in 2007 and 2008 give an indication in changes in household habits towards more sustainable behavior.

Although major progress has already been made in recycling waste and in producing goods with an improved life cycle assessment, there is a need for a cross sectoral policy for sustainable resource management in Switzerland. If environmental pressure caused by consumption is to be reduced further in the future, the issue must be addressed from the start of the production chain. The manufacturing and use of most products causes far greater environmental pressure than their orderly disposal. For this reason, it will become more and more important to exert an influence on production. Possible approaches include, for example, partnerships with industry and commerce, life cycle assessments, information for producers and consumers, and international agreements.

Sustainable practices in resource use and waste management are geared not only towards ecological but also economic and social objectives. In the future, products will need to satisfy environmental quality standards and also fulfil social criteria to a higher degree.

# 2. Generic issues relating to the inclusion of SCP in national policies

Between 1990 and 2007 the Swiss population increased by 12 % and gross domestic product (GDP) rose by 27 %. In the same period, household consumer spending grew by 26 %, reaching 280 billion Swiss francs in 2007. The overall increase in consumer spending is mainly the result of growth in expenditure for healthcare, housing, communications and

various goods and services. Between 1989 and 2007 the volume of segregated municipal solid waste (MSW) more than doubled from 160 to 370 kg per year.

Swiss citizens attach great importance to environmental problems. In a survey of public perceptions, 79 % of respondents place environmental problems high on the list of priorities. In 2003, Swiss citizens were spending about 7% of their household expenditure for organic food products in total expenses for food and drink. In 2008 the sales volume for organic products increased by 11.2 % to an amount of 1.44 billion francs. This indicator, however, does not give an indication of the market share for sustainable products. Nevertheless, there is still a paucity of information showing changes in household habits towards more sustainable behavior.

# Integrated product policy IPP

Growing efforts have been made to recycle waste and to promote the production of consumer goods with an improved life cycle assessment. A part of the "Sustainable Development Strategy: Guidelines and Action Plan 2008–2011" of the Federal Council is focusing in particular on integrated product policy (IPP). This policy has been introduced in the "Sustainable Development Strategy 2002. A national IPP network, including different Federal Offices has been established in order to create coherent policies, laws and regulations that further IPP/SCP. Under this policy, products and services have to meet economic, environmental and social standards throughout their life cycle. The general aims include, not least, establishing sound legal foundations for IPP and introducing additional measures to promote material efficiency. In this way, annual per capita resource consumption could be stabilised or even reduced. This would also have implications for the hidden flows associated with imports. For these to be significantly reduced, the concept of IPP would have to be implemented internationally.

### Marrakech Process, ten year framework of programmes

The Marrakech Process can be seen as the international counterpart of IPP. The UN Marrakech Process is concerned with sustainable consumption and production. Switzerland was co-initiator of the UN resolution on the ten year framework of programmes to promote sustainable production and consumption patterns and is also a signatory to it. Switzerland is particularly active in specific projects to promote sustainable consumption and participates proactively in the international programme for instance, by leading a Marrakech Task Force on sustainable public procurement.

# 3. Sustainable public procurement policies, laws and regulations

Government (the Confederation, cantons, municipalities) purchases goods and services worth about 34 billion Swiss francs every year. This huge potential should be fully exploited, both to set a good example and to steer the market in the direction of better products and services. At a national and international level, the entities in charge work to develop framework conditions (law, finances, aids) that will favour sustainable public purchasing

<sup>&</sup>lt;sup>1</sup> "Sustainable Development Strategy: Guidelines and Action Plan 2008–2011": http://www.are.admin.ch/themen/nachhaltig/00262/00528/index.html?lang=en

("Sustainable Development Strategy 2002<sup>2</sup>"). They cooperate with environmental, legal, financial, purchasing, usage and production specialists.

# Ecological Purchasing Service

The following services are offered to support ecological public purchasing:

- Training of federal purchasers: Courses provided by the Federal Procurement Commission (BKB). Taking the criteria of sustainable development into account in purchasing. Incorporation of life-cycle thinking.
- Information exchange and collaboration with the 2 largest associations of public purchasers in Switzerland, the Interest Group for Ecological Purchasing (IGöB) and eco-bau (sustainability in public buildings and construction). Developing and harmonising ecological criteria for the different areas in purchasing.
- Preparation and distribution of aids for ecological purchasing, such as handbooks, recommendations and information on eco-labelling.
- Support of purchasing offices in connection the Federal Resources and Environmental Management System called RUMBA.
- Information and experience exchange nationally and internationally.

# 4. Instruments for sustainable consumption

The Confederation disposes of a set of instruments for restructuring present production and consumption patterns towards greater sustainability. Targeting the awareness of consumers, the Confederation has committed itself to supporting the demand for products which fulfill sustainable criteria throughout the production chain (as described in the Sustainable Development Strategy: Guidelines and Action Plan 2008–2011"). Furthermore, the necessary information and documentation should be available to enable private consumers to recognize sustainable products.

### Eco-social labels

As part of its strategy, the Federal Council therefore wishes to assess the expediency of recognizing and promoting eco-social labels that contribute to sustainable development. Contrary to regulations on marking and product declaration, eco-social labels are used voluntarily to label a product or a service. The promotion of eco-social labels is embedded in the respective sectoral policies (e.g. environmental, economic, energy and social policies). The promotion is primarily the responsibility of private organisations, and in this area, the Confederation should play a subsidiary role. In this regard, Switzerland supports PUSCH<sup>3</sup>, the information centre for environmental and social labels,

<sup>&</sup>lt;sup>2</sup> Sustainable Development Strategy 2002

<sup>&</sup>lt;sup>3</sup> www.labelinfo.ch

Switzerland also works informally in European environmental label working groups, and collaborates with the European Commission with a view to Swiss participation in the European eco-label scheme.

Information to consumers to improve their environmental impacts

In 2006 a study<sup>4</sup> evaluating the environmental impacts of housing, of private transportation, of consumer goods and services, of food supply and of public utilities in Switzerland was conducted. The results of this study can be used by consumers to improve their environmental impacts. It concentrates primarily on the potential for improvement of the environmental balance, by identifying the key factors, actors and decisions for the environmental impact and then deriving consumption scenarios that are environmentally sustainable. The results are interesting to note: by adopting a series of scenarios coinciding as closely as possible with the present Swiss lifestyle the environmental impact of a consumer can be reduced by one third, at no extra cost. A second study on consumer behaviour is soon to be published on the website of the Federal Office for the Environment (FOEN)<sup>5</sup>.

# 5. SCP in national priority areas

Since the 1980s, Switzerland has implemented numerous measures to reduce pressure on the environment caused by consumption. In the Sustainable Development Strategy: Guidelines and Action Plan 2008–2011" of the Federal Council, the change process needed in order to achieve the goals of sustainable production and consumption is recognized as a key challenge.

# Conservation and recovery of non renewable resources

In Switzerland, the conservation and recovery of non-renewable resources such as metals or gravel is gaining additional importance. In future, it should be possible to meet a host of needs through improved recycling and greater material and energy efficiency. To this end, the main prerequisite is to identify the existing stocks of resources (secondary raw materials) and ensure their targeted recovery and use. Moreover, urgent efforts must be made to seek new sources of raw materials that are likely to become scarce in the foreseeable future (e.g. technical metals such as Indium, Ruthenium etc.). Surveying the available stocks and getting resource recovery (e.g. from copper cables) under way are important steps in this regard.

## Life cycle assessments

Evaluating the ecological effects of a product from cradle to grave is a new instrument which can help attain further efficiency in waste management. Life cycle assessment is therefore attracting widespread interest. This instrument provides a list of all the environmental impacts that a product causes during its entire life cycle: from the extraction of the raw materials, to the manufacture and the use of a product, until it is disposed of as waste. It is a useful way of making a practical numerical summary of the approach to products in terms of their life

<sup>&</sup>lt;sup>4</sup> Consommation respectueuse de l'environnement, 2006, OFEV

www.environment-switzerland.ch

cycles in relation to their ecological effects. The ecological scarcity method <sup>6</sup> allows for the assessment of the impacts generated by the release of pollutants and extraction of resources identified in a life cycle inventory analysis.

Switzerland supports the wider application of this instrument by collaborating in the improvement of existing life cycle assessment methods. It also promotes measures in which life cycle assessments play an important part for basic data, e.g. eco-design (phase of product development); eco-labels (as a marketing instrument) and ecological public purchasing. The authorities collaborate actively in the use of life cycle assessment calculations in the public administration and in business, especially the assessment of current material flows.

### Ecoinvent database

In order to facilitate the use of life cycle assessment calculations, Switzerland created the Swiss "Ecoinvent 2000"<sup>7</sup> database for eco-inventories. The ecoinvent Centre - a Competence Centre of ETH, PSI, Empa and ART - is the world's leading supplier of consistent and transparent life cycle inventory (LCI) data of known quality and offers science-based, industrial, international life cycle assessment (LCA) and life cycle management (LCM) data and services.

# Environmental quality standards and social criteria

At the heart of the standards strategy is the vision of a comprehensive and optimised integration of environmental aspects into standardisation. On the one hand, this allows an improvement in the state of the environment with regard to products and processes; an improvement that can be sustained by industry itself. On the other hand, standards should be used as a complementary element to legislation and to aiding implementation, thus allowing official regulation activity to be focused more on those areas of industry that are heavily regulated by standards. In an initial step towards implementing its strategy, Switzerland has set up a standardisation office which serves as a contact point. Here, work programmes are drawn up in accordance with the measures proposed in the strategy; these are implemented in close collaboration with internal departments and external partners.

In relevant negotiations within the WTO, Switzerland is working towards the goal that not only the characteristics of products but also the environmental and social impacts of their process and production methods (PPMs) are taken into account for interpreting treaties under the dispute settlement mechanism of the WTO as legitimate criteria for distinguishing between products under the current trade system if they correspond to internationally recognized standards. The creation of internationally recognized labels and certificates could pave the way for recognizing different process and production methods. Switzerland therefore supports the development and introduction of voluntary standards which are supported by all relevant stakeholders.

<sup>&</sup>lt;sup>6</sup> Ecological Scarcity Method - Eco-Factors 2006: <a href="http://www.bafu.admin.ch/publikationen/publikation/01031/index.html?lang=en">http://www.bafu.admin.ch/publikationen/publikation/01031/index.html?lang=en</a>

<sup>&</sup>lt;sup>7</sup> http://www.ecoinvent.org/

Binding requirements concerning tax exemption for biofuels

Sustainable practices in resource use and waste management are geared not only towards ecological but also economic and social objectives. In the future, imported products will need to satisfy environmental quality standards and also fulfill social criteria to a higher degree.

As Switzerland is aware of the various environmental and social risks involved, it advocates a policy of limited, clearly defined support. It was the first country worldwide to introduce binding requirements concerning tax exemption for biofuels.

Biofuels are required to lead to a substantial reduction in greenhouse gas emissions. From cultivation of the crop to consumption of the fuel, emissions must be reduced by at least 40 % compared with petrol. Throughout their life cycle, biofuels must not cause significantly greater environmental impacts than fossil fuels. Particular attention is to be paid to air, soil and water pollution. The cultivation of biofuel crops must neither endanger the preservation of biodiversity or rainforests nor other ecosystems that act as carbon sinks. Cultivation and production operations must comply with the labour legislation.

This new instrument has been in place since July 2008 and is a good example of how to encourage the application of social and environmental requirements link to an incentive (tax exemption). It is the first legal instrument requiring the application of a life cycle assessment. Switzerland has no trade restrictions with respect to biofuels. But sustainability is promoted by granting substantial tax reductions to biofuels produced according to social and ecological minimal criteria.

Producing according to recognized sustainability standards, be they voluntary or governmental (tax benefits), enables market expansion for exporters. Sustainability is an important tool for businesses to stay ahead of competitors and expand their market share.

Proliferation of too many diverging sustainability criteria and different standards for biofuels hampers trade and might also jeopardize environmental and developmental objectives. Switzerland is active in multilateral governmental initiatives such as the GBEP<sup>8</sup> to define commonly agreed basic principles which are needed regarding the sustainable production and use of biofuels. The fine tuning of the details and implementation can then be led and catalyzed by complementary (voluntary) processes such as the CEN/TC 383 or the Roundtable on Sustainable Biofuels, RSB. In the future it will be important to make the various standards in development compatible, and harmonising them. An option could be to define e.g. minimum criteria for all type of labels for biofuels and to combine them with various levels of requirements. Reference standard(s) in order to approve certification bodies and procedures in order to verify the equivalency of different biofuel standards can be very useful and helpful tools in this regard.

Measures concerning energy production and consumption

The Energy Law and its associated application ordinances form the legal basis of the Confederation's energy policy. This law, which plans a broad cooperation with the private sector, is based on the principle of subsidiarity of State interventions, and puts the emphasis on voluntary measures. It also defines the division of tasks between the Confederation and

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<sup>&</sup>lt;sup>8</sup> Global Bioenergy Partnership.

the cantons, especially concerning energy standards in the construction sector, as well as the development of incentive programmes for the cantons. The principal measures to improve energy efficiency have been implemented in the Swiss energy programme for 2001 to 2010.

Swiss energy's core quantitative objectives support those laid down in the CO2 Law, as well as Switzerland's commitments in the Framework Convention on Climate Change. CO2 emissions from the consumption of fossil fuels must decrease by 2010 by 10 % compared with their 1990 level. Consumption of electricity must not exceed 2000 levels by more than 5 %. Furthermore, the proportion of renewable energies must increase by 0.5 tera watt hours (TWh = 109 kilowatt-hours) for electricity production and by 3TWh for heat.

Swiss energy has put the emphasis on various supplementary measures. One of the main measures consists in agreeing a contract for services with the Energy Agency for Industry. Set up as a private entity, that helps companies to define internal measures of reducing energy consumption and CO2 emissions. Private energy agencies have been put in charge of coordinating, assessing and supervising the activities linked to the sectoral conventions concluded on a voluntary basis, as well as writing the corresponding reports.

Another measure is the introduction of "Energy" labels for household appliances and vehicles. With regard to vehicles, it is planned to also include pollutant emissions and noise. These labels must guarantee greater transparency for the consumer when purchasing goods.

The introduction of a new quality assurance system to improve certification according to the Minergy standard is also part of the measures adopted. This label is for buildings whose energy consumption does not exceed three quarters of that of typical buildings. Switzerland has also introduced energy consumption reduction and follow-up services for big consumers in the public sector.

The "Energy city" label is also encouraged (over a quarter of the population of Switzerland already lives in an "Energy city"). Finally, a network of private agencies and competence centres has been created to promote renewable energies and energy efficiency.

# Agricultural policy

In order to achieve the shift towards more sustainable consumption and production methods, the agricultural sector has received particular attention. All legal changes in the agricultural sector are therefore being assessed systematically regarding their impact on sustainability.

# 6. International development cooperation activities

Swiss Economic Development Cooperation

Under the Economic Development Cooperation of the Swiss State Secretariat for Economic Affairs (SECO), programs related to sustainable consumption and production in the Swiss partner countries have been supported for many years. Switzerland's relevant cooperation in the amount of several million Swiss francs per year includes:

 Knowledge partnerships for the state-of-the-art recycling of electric and electronic waste (e-waste) with China, India, South Africa, Peru and Colombia;

- together with UNIDO, the establishment of National Cleaner Production Centers which offer eco-efficient solutions to the industry, and introduce innovative concepts such as chemical leasing;
- environmental credit lines for SMEs;
- municipal waste management and waste water treatment plants;
- national certification services for organic farming;
- multi-stakeholder dialogues for the establishment of international sustainability standards for commodities such as timber, cotton, coffee, soy and biofuels;
- awareness raising for the introduction of quality systems such as ISO 14000, 22000, 26000.

Switzerland has also substantially increased its cooperation in the field of climate change mitigation e.g. through a contribution of USD 8.25m to the Forest Carbon Partnership Facility of the World Bank. Finally, Switzerland has established an inter-ministerial platform for renewable energy promotion in international cooperation (REPIC).<sup>9</sup>

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<sup>&</sup>lt;sup>9</sup> For more information see: www.seco-cooperation.ch and www.repic.ch.