



Press release

Bern/Neuchâtel, Friday 1 June 2007

«Environment Switzerland 2007» Report

The environment in Switzerland: mixed results

The Swiss policy on environment and resources has produced positive results in several areas such as water quality, waste treatment and certain atmospheric pollutants. These are the findings of the report entitled «Environment Switzerland 2007» published by the federal government on 1 June 2007. However, the general state of the environment in Switzerland has not improved significantly. Our style of life and patterns of consumption have cancelled out the progress made in environmental protection. The main challenges for the future remain the use of resources and climate change.

This new report on the state of the environment in Switzerland has been produced jointly by the Federal Office for the Environment (FOEN) and the Swiss Federal Statistical Office (FSO). The report is based on the latest available knowledge and data, and provides a systematic overview of the state of the environment and the ways in which it is changing. It deals not only with purely environmental questions, but also with related issues in areas such as transport, energy and agriculture. In addition, for the first time, the report looks at the results of the implementation of environmental policy. The federal offices that produced the report come to the conclusion that the general state of the environment has not improved significantly since the last report was published in 2002. The «Environment Switzerland 2007» report is being presented in the run-up to International Environment Day on 5 June 2007.

What has been achieved?

- In general the environmental policy has produced good results with regard to the combat against pollution (of air, water and soil), in the protection of the ozone layer, and in the management and treatment of waste. The clean-up of contaminated sites has already begun in the most urgent cases, and the survey of contaminated sites is progressing well. Swiss society is aware of the risk of natural hazards and of major accidents.
- Thanks to technological progress and continued developments in Swiss industry, emissions of greenhouse gases as a result of economic activity have remained stable since 1990, despite an increase in gross domestic product (GDP). In 2004, 21% of all CO₂ emissions were attributable to industry.

- Because of the use of more efficient vehicles, CO₂ emissions from traffic have been stable since 2000, representing 34% of all CO₂ emissions.

What environmental problems still have to be resolved?

- Emissions of greenhouse gases - the main cause of climate change - are too high. Between 1970 and 2005 the average temperatures in Switzerland increased by 1.5°C.
- In the same way, emissions of ozone precursors and of particulate matter, which lead to winter and summer smog, are too high. The Swiss population is chronically exposed to the adverse effects of these pollutants.
- We still have little knowledge of the origins and effects of many chemicals, and the amount of waste we produce continues to increase.
- The loss of biodiversity continues, with 30 to 50% of indigenous species currently under threat. Fragmentation of the landscape and of habitats is still increasing.

Human activity puts too much pressure on the environment

The main reasons for the mixed overall results are that Switzerland is becoming more and more urbanised, mobility is increasing, and there is a continued shift towards the service sector. This trend and the resulting imbalance between regions increases pressure on the environment. Our way of life and patterns of consumption are cancelling out the progress we have made in environmental protection and eco-efficiency.

The challenges

In the report «Environment Switzerland 2007» the Federal Office for the Environment and the Federal Statistical Office come to the following conclusions:

Climate change

As an alpine country, Switzerland is particularly threatened by climate change. The recession of glaciers, the melting of permafrost and changes in vegetation and precipitation mean that Switzerland has to face considerable challenges. Measures have to be taken to reduce emissions of greenhouse gases and strategies developed for us to adapt to climate change.

Biodiversity

Efforts to conserve biodiversity must be increased. Increasing urbanisation and the spreading of transport infrastructures are among the factors that put biodiversity under pressure. Initially it is important to ensure that there is environmental observation, so tendencies for flora and fauna to change can be detected at an early stage, and appropriate measures taken (e.g. the creation of large-scale networks of biotopes).

Health

Atmospheric pollution, noise, chemicals, extreme meteorological conditions and radiation all represent risks to human health. Although it is difficult to prove the negative effects of pollution on health, there is now little doubt that these effects do indeed occur. Most of the recognised effects are concerned with the impact of atmospheric pollution on human health, so air quality must be further improved by reductions in ozone and particulate matter.

Innovation

New technologies also represent an important challenge. They have the potential to be applied in numerous areas and can have positive effects on the environment. However, the possibility of adverse effects cannot be excluded, and some effects on human beings and the environment remain largely unknown. In view of this uncertainty, it is necessary to have a public debate on potential risks and how to estimate them.

Policy on the environment and resources covering several areas

Efforts to reduce pressure on the environment have produced very varied results. Therefore, in the coming years we have to improve the integration of environmental issues in other areas of policy, such as transport and agriculture. The biggest challenge for the coming years will be the sustainable use of our limited natural resources. To meet this challenge, we will need to have a coherent policy on this issue.

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Publication:

«Environment Switzerland 2007» report, available in German, French, Italian and English. Order numbers: 319.407.d (German), .f (French), .i (Italian), .e (English). Price: CHF 15 (incl. VAT).

Internet:

<http://www.environment-switzerland.ch>

<http://www.environment-stat.admin.ch>

Ordering/distribution:

BBL, Publication Distribution Office, CH-3003 Berne

Tel. +41 (0)31 325 50 50, fax +41 (0)31 325 50 58

verkauf.zivil@bbl.admin.ch , <http://www.bundespublikationen.admin.ch>

Order numbers: 319.407.e (English), 319.407.f (French),

319.407.d (German), 319.407.i (Italian)

FOEN, Publications, CH-3003 Berne

Tel. +41 (0)31 322 89 99, fax + 41 (0)31 324 02 16

docu@bafu.admin.ch , <http://www.environment-switzerland.ch> » [Documentation](#) » [Publications](#)

Order numbers: DIV-1024-E (English), DIV-1024-F (French),

DIV-1024-D (German), DIV-1024-I (Italian)

FSO, CH-2010 Neuchâtel

Tel. +41 (0)32 713 60 60, fax +41 (0)32 713 60 61

order@bfs.admin.ch , www.statistics.admin.ch » [Services](#) » [Swiss statistical publications](#)

Order numbers: 319.407.e (English), 319.407.f (French),

319.407.d (German), 319.407.i (Italian)

ISBN

978-3-303-02102-6 (e), 978-3-303-02100-2 (f), 978-3-303-02099-9 (d),

978-3-303-02101-9 (i)

G1 Air quality in 2006

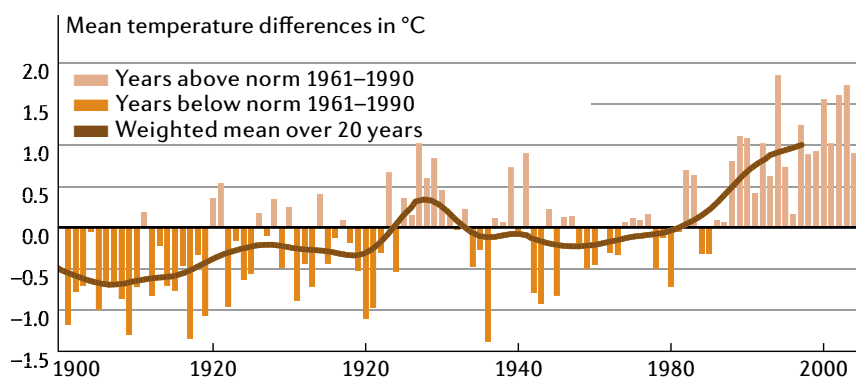
Immission threshold values:
 ■ respected almost everywhere
 ■ sometimes exceeded
 ■ often/largely exceeded

	City	Agglomeration	Countryside
Sulphur dioxide (SO ₂)	■	■	■
Nitrogen dioxide (NO ₂)	■	■	■
Ozone (O ₃)	■	■	■
PM10	■	■	■

Source: FOEN



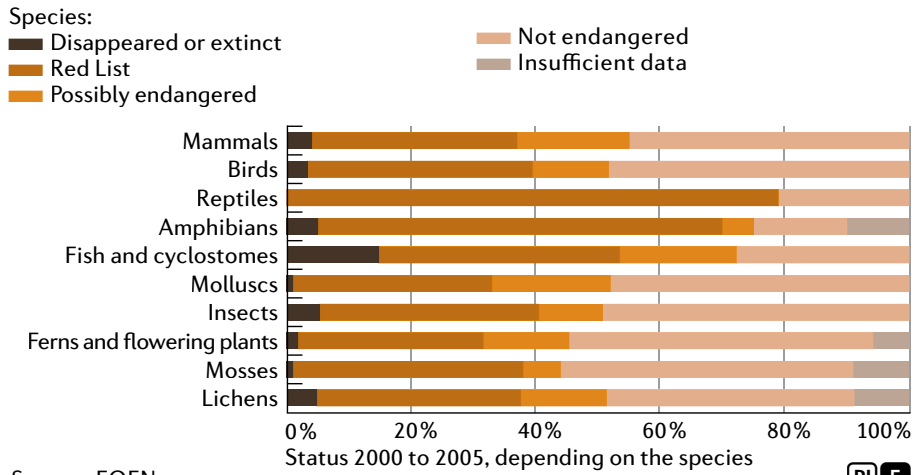
G2 Temperature in Switzerland



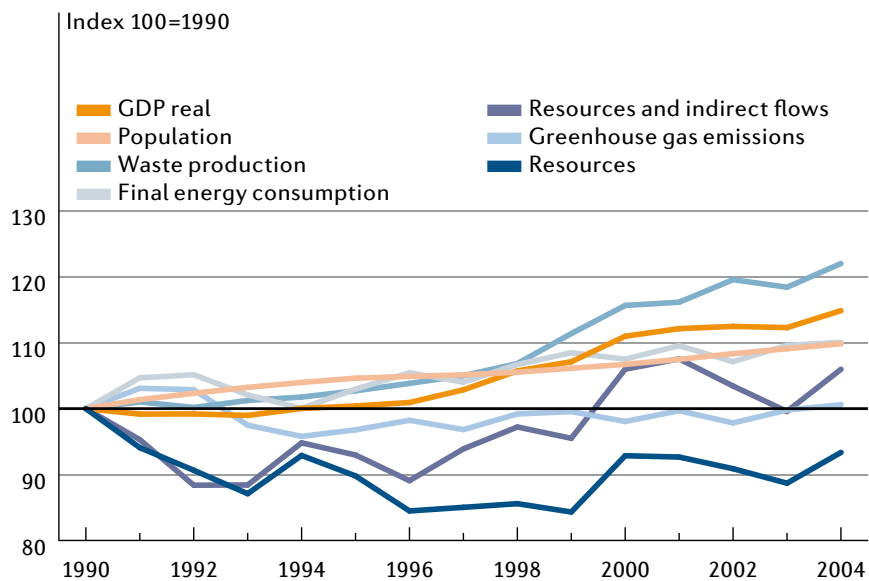
Source: MeteoSuisse



G3 State of the biodiversity



G4 Economic growth and use of resources



Key messages in «Environment Switzerland 2007»

The state of the environment is as follows...

Air

- Air quality has greatly improved over the last 20 years, thanks to the numerous measures adopted. However, the threshold limits set for nitrogen dioxide, ozone and particulate matter are still being exceeded and sometimes significantly. The same observation applies to acid and nitrogen fallout in fragile ecosystems.
- Air pollution is a threat to ecosystems and each year generates costs amounting to several billion francs.

Biodiversity

- With some 50,000 animal and plant species, Switzerland is home to considerable biological diversity, but species diversity is steadily diminishing and 30 to 50% of native fauna and flora are seriously threatened to varying degrees.
- The problem of exotic organisms, introduced deliberately or accidentally, could escalate and compromise biodiversity.

Climate

- In Switzerland average temperatures increased by 1.5°C between 1970 and 2005, which is approximately 1.5 times greater than the average increase observed for land areas of the northern hemisphere. Glacial recession, the reduction of the snow sheet in the highlands, and changes in the vegetation are evidence of climate change. As an Alpine country, Switzerland is particularly vulnerable to climate change.
- In 2005, greenhouse gas emissions had decreased by 0.5% compared with 1990; this is mainly due to measures linked to energy policy. These emissions are principally caused by traffic, households, industry and agriculture.
- In order to meet the objectives of the Kyoto Protocol - 8% reduction in greenhouse gas emissions by 2010 compared with 1990 values - Switzerland needs to introduce new measures.

Ozone layer

- Between 1986 and 2004, the measures taken by the international community and Switzerland contributed to decreasing the regulated part of the consumption of ozone-depleting substances by 99% in Switzerland and 93% at the international level. The continuation of these efforts should enable the complete regeneration of the ozone layer in around sixty years from now.

Water

- In Switzerland, 80% of all drinking water comes from ground water springs and is generally of good quality. However, some problems have recently been observed, such as undesirable traces of pollutants.
- Most surface water is of adequate quality. Some problems remain, however, such as eutrophication of the lakes on the Central Plateau.
- Daily changes in stream flows, insufficient annual residual flows and structural deficits are a menace for many watercourses.

Forests

- Only two-thirds of total usable annual timber growth is used. Forestry operations therefore need to be optimized.
- Deposits of atmospheric pollutants are a long-term threat to forests.

Nature and Landscape

- Switzerland is a country rich in outstanding natural and rural landscapes. Some of them are of international importance. These resources are essential to quality of life and tourism.
- Urban sprawl and the intensive use of land cause fragmentation of ecosystems and of the landscape, making the latter more uniform.

Soils

- Soil is a limited, non-renewable resource. However, arable land is lost in Switzerland every day.
- Chemical damage to the soil can be effectively combatted using existing measures.
- On the other hand, more systematic implementation of the planned measures to reduce physical damage to the soil – particularly hydric erosion, compaction and remodelling of land – is required.

... due to the following human activities:

Use of resources

- Each year, materials used in Switzerland amount to approximately 100 million tonnes; that is, 14 tonnes per inhabitant. Only a quarter of these materials is renewable.
- Imports increase regularly, resulting in environmental pressures abroad.

Energy consumption

- In Switzerland 80% of energy needs are covered by imports (crude oil, petroleum products, natural gas and nuclear fuels). Most of the energy used comes from fossil fuels. Energy consumption is constantly increasing.
- The SwissEnergy programme predicts for 2010 a 5% maximum increase in electricity consumption as compared with 2000, and a growth in the proportion of renewable forms of energy, in particular for the production of electricity and heat.

Transport

- Individual motorised transport has doubled since 1970 and road freight transport has tripled. Public transport accounts for 18% of passenger transportation and rail accounts for 40% of freight transportation.
- Since the year 2000, CO₂ emissions from transport have been stable. In 2004 they made up 34% of the overall CO₂ emissions in Switzerland.
- Hydrocarbons, NO_x and PM₁₀ emissions have decreased since 1985, but they have to be further reduced, in particular by the application of new technologies.

Industrial Activities

- Although gross domestic product (GDP) has increased since 1990, greenhouse gas emissions resulting from economic growth have remained stable.
- In 2003, Swiss industry spent CHF 1.28 billion to protect the environment; that is, about 0.3% of GDP. The same proportion applies in European industry.

Households and consumption

- In Switzerland, each inhabitant consumes an average of 233 litres of water per day and produces 660 kg of waste per annum. Final energy consumption has remained stable although more living space is occupied. Population growth results in an overall increase in the pressures on the environment caused by households.
- Approximately one quarter of CO₂ emissions are attributable to household heating.

Agriculture

- Because of its considerable land use, agriculture plays a central role in the maintenance of biological and landscape diversity.
- Since 1993, major ecological progress has been accomplished by agriculture. However, it still remains a source of distributed pollution, especially concerning ammonia and – in a more or less serious way according to the regions – phosphorus.

... which leads to the production of the following substances:

Chemicals

- Pollution involving heavy metals, polychlorinated dioxins, PCBs and nonylphenol has decreased significantly.
- About 100,000 chemical substances are used for economic purposes worldwide.

Hazardous organisms

- The use in containment facilities of hazardous and pathogenic organisms has increased in the fields of research and the manufacturing of pharmaceutical products.

- Since the acceptance of the moratorium on GMOs, there has been a ban on the use of GMOs in the natural environment.
- The regulations in force since 2004 have increased safety in this area.

... and in particular produces:

Waste

- Since 2000, about 5 million tonnes of municipal waste have been produced every year. Nearly half is collected separately and recycled, while the rest is incinerated in an environmentally appropriate way.
- The “polluter pays” principle is not yet rigorously enforced in the area of waste.
- Switzerland has achieved a high level of autonomy where hazardous waste disposal is concerned, most of which results from the cleaning up of contaminated sites.

Non-ionising radiation

- The increase in electricity consumption and the use of electrical appliances and mobile telecommunication devices is causing an increase in non-ionising radiation.
- The long-term effects on health of this radiation are still unclear. A national research programme is currently under way, and should enable the resolution of some of these questions by 2009.

Contaminated sites

- Switzerland's 3000 to 4000 contaminated sites will be cleaned up in a sustainable way over the next 25 years. Some 17 km² of industrial zones with contaminated sites should be used for other purposes.

Risk of major accidents

- In 2005, 2327 companies in Switzerland were using potentially dangerous substances and are therefore regulated by the Ordinance on Major Accidents, (OMA). The communication corridors which come under the OMA comprise 4000 kilometres of railway track and 7850 kilometres of national or transit highways.

... the increase in such activities and the extension of the infrastructures involved make them more sensitive to:

Natural risks

- More and more damage is being caused by natural disasters because of the steady increase in the assets and property exposed to them, the vulnerability of infrastructures and extreme meteorological events.

... in addition ...

- Extreme weather conditions, air pollution, noise and radiation constitute risks to health, causing premature death, lost years of life or illness.
- Switzerland is committed to drawing up a global environmental policy and to strengthening international environmental governance. Moreover, it has to meet the commitments undertaken in global environmental agreements.
- New technologies offer a wide range of applications and opportunities, and may also be beneficial and useful to the environment. On the other hand, they may have harmful consequences, and their impact on people and the environment are largely unknown.

«Environment Switzerland 2007» report: structured according to a uniform methodology

State of the environment and the way it is changing

Environmental reports give clear, easy to understand information on the state of the environment and the way in which it is changing, corresponding to the legislative requirements. Such reports are based on appropriate, reliable, meaningful information, and on validated official data. Therefore, the information presented in environmental reports can serve as the basis for public debate and for discussions on the environment and other areas of policy.

The fifth environmental report provides analyses, which help in understanding the relation between human activities and the environment. The objective is to provide information on the state of the environment, and the ways in which it is changing.

Result of close collaboration

The report was prepared jointly by the Federal Office for the Environment and the Swiss Federal Statistical Office, who combined their respective competencies to present the most up to date information. It has been written in a collaborative way, with personnel from the federal administration taking part in selecting topics and indicators used, and in performing the analyses.

DPSIR Model

The report is based on an approach which integrates environmental questions and related preoccupations in other areas of policy, such as transport, energy and agriculture. The report was prepared according to the DPSIR model, which is used throughout Europe. DPSIR stands for **D**riving forces, **P**ressures on the environment, **S**tate of the environment, **I**mpact on the environment, and **R**esponses (i.e. measures applied). The model enables the analysis of relations between factors that have causal effects on the environment. For each theme the following questions are asked:

- “What is happening?” (state, impact)
- “Why do these problems arise?” (driving forces, pressures)
- “Are the changes important?” (pressures and state)
- “What reaction is envisaged?” (impact and response).

Analysis of each environmental problem according to these principles enables a systematic evaluation of the environment to be performed, and also provides the basis for the structure of the report.

The most important aspects of the DPSIR structure were analysed using those indicators which are most relevant to the DPSIR analyses, and for which data are available. The indicators presented in the graphs are shown in pictogram form, to reflect legislative or strategic objectives. Criteria were defined in order to evaluate each graph in a systematic, transparent way.

ENVIRONMENTAL REPORT 2007

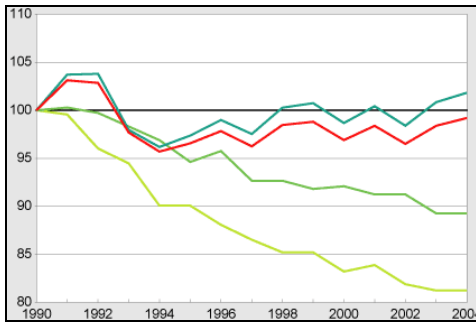
Graphs, tables and maps – environmental indicators on the Internet

The indicators used for the environmental report can now be found on the website of the Swiss Federal Statistical Office (FSO).

The environmental indicators of the Swiss Federal Statistical Office give a clear and comprehensive overview of various environmental problems. The data are updated regularly.

There are numerous figures, tables, explanations and further information.

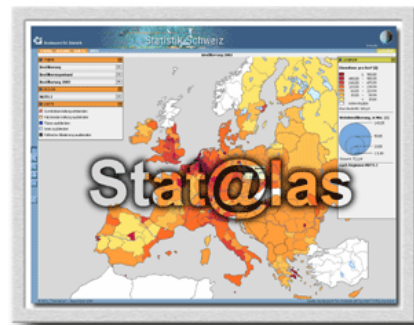
[http://www.statistik.admin.ch/Themen » 02 - Raum, Umwelt » Umweltindikatoren » Indikatoren](http://www.statistik.admin.ch/Themen»02-Raum,Umwelt»Umweltindikatoren»Indikatoren)



Stat@las: an interactive statistical atlas of European regions, with environmental maps.

14 of the Stat@las maps are concerned with the indicators used for the environmental report. In addition, the maps in the atlas cover many different topics relating to European statistics. The maps show in a clear, attractive way differences within countries and also cross-border differences.

<http://www.europaatlas.bfs.admin.ch/>



The state of the environment on-line on the FOEN website

From 1 June 2007, it will be possible to consult the up-to-date state of the environment at any time via www.umwelt-schweiz.ch/zustand. There will be descriptive reports, electronic maps, graphs and tables on more than 20 topics, ranging from groundwater to stratospheric ozone.

The short reports are intended to give a quick overview. They show the relations between activities, pollution, the quality of the environment, impacts and responses. The way the information is presented on the Internet enables a deeper analysis, with numerous links leading to further information.

The maps give information on the state of the environment at the local level. Once users have selected the area and resolution, they can find answers to questions such as: Where is the nearest protected area? Where in Switzerland is the most timber used? Which regions are most threatened by earthquakes?

