Schweizerische Eidgenossenschaft
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Eidgenössisches Departement für
Umwelt, Verkehr, Energie und Kommunikation UVEK

Bundesamt für Umwelt BAFU
Mediendienst
Tel.: 031 322 90 00
Fax: 031 322 70 54
mediendienst@bafu.admin.ch
http://www.umwelt-schweiz.ch

Fact sheet 3

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CO_2 Emissions: where do we stand in the Implementation of the CO_2 Law?

In Switzerland, the production of greenhouse gases is mainly attributable to CO_2, which contributes 80 percent of the total. The CO_2 Law is a central instrument of Swiss climate policy to meet the Kyoto commitment. A 10 percent reduction in CO_2 emissions would enable Switzerland to meet its Kyoto commitment.

Slight reduction in CO_2 emissions

In 2005, CO_2 emissions were slightly less than in 2004, according to the CO_2 Law (see table below). Emissions from the burning of heating oil decreased by barely 0.5 million tonnes between 2004 and 2005, whereas emissions from the combustion of fuel for transport increased by 0.1 million tonnes. In comparison with 1990, in 2005 emissions attributable to heating had decreased by 6.2 percent, whereas those attributable to transport had increased by about 8.6 percent. This means a slight overall reduction (0.5 percent) between 1990 and 2005 (see table).

The important variables that influence CO_2 emissions are economic development, the cost of energy, energy policy and winter temperature (for heating oil). During the winter months of 2005, temperatures were the lowest since 1991, which led to an additional consumption of heating fuel. However, this effect is corrected for according to the CO_2 Law. Therefore, corrected for temperature, emissions from the burning of heating oil were lower in 2005 than in 2004. However, the Kyoto Protocol does not allow climate correction. Without climate correction, 2005 emissions were 0.3 million tonnes greater than in 2004.

At present, two opposite changes are particularly influential in determining emissions. Rapid economic growth leads to an increase in emissions, whereas high energy prices reduce emissions. It seems that for transport fuel, the two effects roughly balance out. For heating fuel, where the relative increases in prices are greater than for transport fuel, the price effect seems to more than compensate for the effect of economic growth.

If one looks at developments since 1990, the fact that total emissions have not increased is mainly attributable to energy policy measures. An analysis carried out by EnergieSchweiz

showed that, in the absence of energy policy measures, total CO_2 emissions would now be 7.5 to 10 percent greater. Voluntary measures taken by businesses have made a big contribution to reducing CO_2 emissions. More than a thousand companies have made a commitment through the Energy Agency for Business, in view of the impending CO_2 tax.

Further measures

To achieve the reduction goals of the CO_2 Law and the Kyoto Protocol, the Federal Council decided on a package of further measures:

- CO_2 tax on heating oil
- climate centime on transport fuel
- promotion of natural gas and bio-fuel for transport.

The private sector climate centime has been collected since 1 October 2005 from the petroleum industry. The approximately 100 million CHF collected annually are fed into a private foundation, which finances reduction measures; to the extent of at least 0.2 million tonnes of CO_2 in Switzerland, and a maximum of 1.6 million tonnes of CO_2 in other countries.

As far as the CO_2 tax is concerned, the ball is in the Parliament’s court. On 21 June 2006, the National Assembly, which is the lower chamber of the Swiss parliament, approved the stepwise introduction of the tax, related to the emission reduction target, which differed from the proposal made by the Federal Council. The upper chamber will give its opinion on the issue in the next few months.

A change in the Law on Mineral Oil is desirable to promote natural gas and bio-fuels. In May 2006, the Federal Council sent the corresponding message to the Parliament.

Table CO_2 Emissions 1990 – 2005

Year	Heating degree days	f *	Million tonnes of CO_2			Relative (1990 = 100)		
			Total	Heating fuels	Transport fuels	Total	Heating fuels	Transport fuels
1990	3203	1.075	40.89	25.34	15.54	100.0	100.0	100.0
1991	3715	0.978	40.44	24.41	16.03	98.9	96.3	103.1
1992	3420	1.031	42.00	25.65	16.35	102.7	101.2	105.2
1993	3421	1.031	39.57	24.27	15.30	96.8	95.7	98.4
1994	3080	1.101	40.14	24.64	15.50	98.2	97.2	99.7
1995	3397	1.036	39.40	24.21	15.19	96.4	95.5	97.7
1996	3753	0.971	38.69	23.45	15.24	94.6	92.5	98.0
1997	3281	1.059	40.29	24.48	15.81	98.5	96.6	101.7
1998	3400	1.035	40.85	24.82	16.03	99.9	97.9	103.1
1999	3313	1.052	41.33	24.70	16.63	101.1	97.5	106.9
2000	3081	1.101	41.22	24.34	16.88	100.8	96.0	108.6
2001	3256	1.064	41.13	24.54	16.59	100.6	96.8	106.7
2002	3135	1.089	40.69	24.20	16.49	99.5	95.5	106.1
2003	3357	1.044	40.94	24.27	16.67	100.1	95.8	107.2
2004	3339	1.047	41.02	24.24	16.79	100.3	95.6	108.0
2005	3518	1.013	40.66	23.78	16.88	99.5	93.8	108.6

* f = Factor for climate correction of combustibles

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Information

- CO_2 Law, CO_2 tax: Andrea Burkhardt, Head of Climate Section, FOEN, tel. +41 31 322 64 94
- Climate centime: Michael Kaufmann, Head of the SwissEnergy Programm, Swiss Federal Office of Energy, tel. 031 322 56 02
- CO_2 statistics: Paul Filliger, Climate Section, FOEN, tel. +41 31 322 68 58

Internet

- Emissions according to the CO_2 Law and the Kyoto Protocol (updated 30.08.06)
  http://www.umwelt-schweiz.ch/buwal/de/fachgebiete/klima/treibhausgase/co2statistik/index.html