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Fact sheet 2

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Emissions of greenhouse gases: where do we stand at the international level?

According to the United Nations Framework Convention on Climate Change, countries must periodically submit to the secretariat of the Convention information on the implementation of the Convention and on their emissions of greenhouse gases. The industrialised countries have already submitted four “national communications”, the last of which was in December 2005[1]. The developing countries are subject to particular rules and have submitted one such communication so far, in 1994.

Emissions of greenhouse gases by industrialised countries

Based on annual inventories, the emissions of greenhouse gases from industrialised countries decreased by 5.9 % between 1990 and 2003 (from 18.4 billion tonnes of CO_2 equivalent[2] in 1990 to 17.3 billion tonnes of CO_2 equivalent in 2003). Carbon fixed in biomass by agriculture and forestry is not included in these figures[3].

However, this image has to be corrected by mentioning that it is above all the countries of Central and Eastern Europe who have markedly decreased their emissions (with the dismantling of industry that had been inefficient and highly-polluting), whereas the other industrialised countries have increased their emissions by 0.6 % since 1990.

[1] Synthesis of the 4th Swiss report:
http://www.umwelt-schweiz.ch/imperia/md/content/oekonomie/klima/politik/nc4-f.pdf
[2] CO_2 equivalent: the global warming effect of one molecule of methane is 24 times greater than that of one molecule of CO_2. So methane emissions have to be multiplied by 24 before they are added to CO_2 emissions. The result is expressed in CO_2 equivalent.
[3] The balance sheet of “carbon sinks”, i.e. the fixing or release of carbon from biomass via forestry and agriculture, also gives a decrease in emissions. This decrease was 6.5% between 1990 and 2003 (16.8 billion tonnes of CO_2 equivalent in 1990 to 15.7 billion tonnes of CO_2 equivalent in 2003).

Implementation of reduction measures in industrialised countries

In December 2005, the industrialised countries had to submit a report to the Kyoto Protocol, showing the progress that they had made in implementing reduction measures. So far, half the countries, including Switzerland[4], have submitted this report.

The reports submitted show that the industrialised states have made considerable progress in setting up national measures in almost all areas of activity. With the exception of transport, all sectors show a tendency towards a decrease in emissions. Society – and in particular the economy – has been mobilised.

Projects for industrialised countries to finance emission reduction measures in developing countries, according to the mechanism envisaged by the Protocol (Clean Development Mechanism) announce reductions of a billion tonnes of CO_2 equivalent. Annual emissions worldwide are currently estimated to be 25 billion tonnes of CO_2 equivalent.

Emissions by other countries (non-Annex I)

The official data published by the Convention for developing countries date back to 1994, the year when non-Annex I countries had to supply their inventory to the Convention. Emissions were of the order of 12 billion tonnes of CO_2 equivalent. The African region recorded the lowest average emissions per inhabitant, at 2.4 tonnes. This is still the case.

[4] Available only in English:
http://www.umwelt-schweiz.ch/imperia/md/content/oekonomie/klima/politik/nc4-rdp.pdf