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Backgrounder

Who's meeting their Kyoto targets? May 2006

Prime Minister Stephen Harper and Environment Minister Rona Ambrose claim that none or few countries that signed on to the Kyoto Protocol will meet their emission reduction targets.

However, these claims are largely false. Most developed countries are on track to meeting their Kyoto targets. Some countries have already surpassed their Kyoto targets. A few countries, like Canada, have much work to do between now and 2012 to meet their target.

Whether on track or not, every "Annex 1" country remains committed to its target, except for those countries, like the U.S. and Australia, who have formally pulled out of the Kyoto Protocol. The Harper government's refusal to meet Canada's obligations under Kyoto puts it at odds with other countries that are working hard to cut their greenhouse gas emissions and meet Kyoto.

Progress on Kyoto: The Leaders

The European Union

The European Union (EU) has a Kyoto target requiring the original 15 EU member nations to collectively reduce their emissions 8% below 1990 levels during the Kyoto period of 2008 to 2012. The EU negotiated a burden-sharing agreement to unevenly allocate emission reductions among its members. Currently, emissions are already below 1990 levels. Existing programs and policies combined with the purchase of international credits are expected to allow the EU to go beyond its target and reduce emissions by 9.3% by 2010.¹

The U.K. has already surpassed its Kyoto target of reducing greenhouse gas emissions (GHGs) by 12.5% and is on track to reduce them by 23-25% by 2010.² Recently, the U.K. government has indicated that it will fall short of its self-imposed target of reducing carbon dioxide (the main GHG) by 20% by 2010, instead reaching a target of 15-18%. It remains committed to reducing its GHG emissions by 60% by 2050.³

¹ European Environmental Agency. 2005. "Greenhouse gas emission trends and projections in Europe 2005."

² UK Secretary of State for the Environment, Food and Rural Affairs. 2006. "Climate Change: The UK Programme 2006."

³ *Ibid.*

France has reduced its GHGs by about 2%, already surpassing its Kyoto target of maintaining emissions at the 1990 level. French President Jacques Chirac recently said, "I want France to try to exceed its Kyoto commitments without waiting until 2012."

German emissions are 18.5% below 1990 levels, within reach of its 21% emission reduction target. Germany is expected to meet its targets without the use of flexibility mechanisms such as international carbon trading.⁴ Ex-Chancellor Gerhard Schroder has offered to set a target of reducing German emissions 40% below 1990 levels by 2020 if the EU accepts a 30% reduction target. The new coalition government under Chancellor Angela Merkel has maintained a strong stance on climate change action.

Sweden's emissions are 2% below the 1990 level even though it is allowed under burden sharing to increase emissions by 4%. In the future, Sweden is not planning merely incremental change. It has committed itself to a "Sweden free of fossil fuels" by 2020.⁵

It is worth noting that a handful of EU nations including Denmark, Spain, Portugal, Italy, and Ireland have experienced significant emissions increases and are unlikely to meet their allocated reduction targets. However, these countries and others (Austria, Belgium, Denmark, Finland, Germany, Italy, the Netherlands, Spain, and Sweden) have already allocated 2.73 billion Euros toward the purchase of international credits.⁶ Further, their shortfalls are expected to be balanced out by other EU nations that have reduced emissions below their targets.

Adding new EU members—ten countries from Eastern Europe—to the original fifteen appears on paper to improve the continent's climate change performance even further. The EU-10's GHG emissions are collectively 32% below 1990 levels, well ahead of their target to reduce emissions by 7.7%. Of course, the downturn in the economy of the former Soviet Union is a big reason for this reduction. It should be noted, however, that most of these economies have recovered substantially, without an equivalent increase in GHG emissions, demonstrating that considerable restructuring away from older, polluting industries has occurred.

Iceland

Icelandic GHG emissions have also decreased, even though they were permitted a 10% increase under the Kyoto Protocol. A big reason is Iceland's commitment, as far back as 1998, to use its tremendous geothermal energy potential to become the first true hydrogen economy. The country presently uses renewable energy for 72% of its primary energy.⁷

New Zealand

⁴ *Ibid.*

⁵ Speech by Mona Sahlin, Minister for Sustainable Development (Oct. 1st, 2005): "Sweden first to break dependence on oil! New programme presented." Available at <http://www.sweden.gov.se/sb/d/5992/a/51058>

⁶ European Environmental Agency. 2005. "Greenhouse gas emission trends and projections in Europe 2005."

⁷ Government of Iceland. 2004. "Ráðstefna um hagnýtingu innlendrar orku í líftækni." Available <http://www3.idnadarraduneyti.is/radherra/raedur-og-greinar/nr/1423>

New Zealand is also on target to meet its Kyoto target of maintaining emissions at 1990 levels. New Zealand has seen increases in GHG emissions but it is making extensive use of land use changes (reducing deforestation and establishing tree plantations) to meet its targets.⁸

Some Laggards

Japan

Japan, like Canada, has a Kyoto target to reduce its GHG emissions by 6% below 1990 levels. Emissions are currently 13% above 1990 levels, and so Japan will have a lot of difficulty in reaching its Kyoto targets. Existing policies and programs are expected to result in a reduction in Japanese emissions, but it will most certainly have to rely upon the international carbon market to meet its Kyoto targets. However, Japan remains committed to doing so, and even advocates that countries tackle climate change “more aggressively” and that they “strengthen” the Kyoto Protocol during the discussions leading to the second phase of the accord.⁹ Despite the emergence of the EU trading system, Japan remains the most active player in purchasing carbon credits internationally.¹⁰ Japan has set up a \$141.5 million fund to further engage in the international carbon market.¹¹

Norway

Norway, which has a similar profile to Canada’s—a northern country with substantial oil and gas development and export—has a Kyoto target requiring emissions to increase by no more than 1% above 1990 levels by 2010. Norwegian emissions are currently 9% above 1990 levels and continue to rise. However, Norway remains committed to meeting its target and will rely on both stronger domestic actions and Kyoto's flexibility mechanisms. Norway’s 2005 state of the environment report reiterates its commitment to both meet its Kyoto targets and negotiate a more ambitious Kyoto framework for the post-2012 period.¹²

The International Carbon Market

The international market for carbon is growing rapidly, with transactions increasing eight-fold between 2004 and 2005.¹³ The vast majority of these involve transactions intended for compliance with the Kyoto Protocol. Contrary to the impression that may have been given by the Conservative government, the majority of the carbon market was not trading in so-called “Russian hot air” (or “hot air” from any other Eastern Block country) but rather were investments in Clean Development Mechanism (CDM) projects.¹⁴ These involve investments from developed countries in projects that verifiably reduce GHG emissions in developing

⁸ Carbon Finance, No 16, April 2005 & No 18, June 2005

⁹ Government of Japan. 2006. “Article 3.9 of the Kyoto Protocol: Consideration of Commitments for Subsequent Periods for Parties Included in Annex 1 to the Convention.”

¹⁰ World Bank. 2005. “State and Trends of the Carbon Market 2005.”

¹¹ Carbon Finance. 2004. “Japanese carbon fund pre-screening projects.” Issue 12. (November).

¹² Government of Norway. 2005. “The Government’s Environmental Policy and the State of the Environment in Norway.”

¹³ Point Carbon. 2006. “Carbon 2006: Towards a truly global market.”

¹⁴ *Ibid.*

countries while promoting sustainable development within them. The methodology established within the Kyoto Protocol ensures that such projects are “additional,” meaning that they would not be developed were it not for the carbon-constraining nature of the Protocol.

As noted, many countries that are most active in the carbon market are those that have a considerable gap between their present emissions and their Kyoto target. Canada is “conspicuous by its absence in the market.”¹⁵

Developing Countries

It has been said, wrongly, that China, India, and other developing countries are not part of the Kyoto Protocol. Over 160 countries, most of them developing, have ratified the accord, though developing countries have no emission reduction targets in the first phase of the Kyoto Protocol. They do, however, have other obligations. For example developing countries have to establish methodologies for calculating their emissions and they have to submit their emissions inventory to the UN.

The intention from the start was for developed countries to act first. After all, developed countries are overwhelmingly responsible for the increase in GHGs in the atmosphere and the subsequent climate changes already being experienced. The reason that *developing* countries were required to count and report their emissions was so that they could join the regime and take on emission reductions in future commitment periods. That is still the intention. No competing agreement involves this possibility, that emissions from both developed and developing countries will be constrained in line with what the science indicates is required in order to avoid the most dangerous impacts of climate change.

Conclusion: An Accord that Needs Strengthening, not Dismantling

It is clear that most Annex 1 countries will meet their targets and that all remain committed to that goal. The superior progress of other nations in reducing emissions is directly related to their implementation of more effective policies and measures including economic incentives and disincentives, energy and carbon taxes, major investments in renewable energy and energy efficiency, and regulations. This progress demonstrates that the Kyoto Protocol is an agreement that is working. If anything, the greatest weakness of the Protocol is that it did not go far enough. It was too small a first step, given the development of climate science and it could have included emission reduction commitments for more countries. These changes are still possible. The world is now negotiating the second phase of the agreement and, at the United Nations climate change conference in 2005, those countries took a small, but coordinated step forward.

With its stated abandonment of Canada’s Kyoto obligations, the new government of Canada is at odds with the majority of the world. It finds itself instead in the camp of the U.S. and Australia, countries that have reneged on their commitment to reduce emissions under the Kyoto Protocol.

¹⁵ *Ibid.*

COUNTRY	BASE YEAR ¹⁶		KYOTO TARGET Megatonnes of carbon dioxide equivalent (Mt CO ₂ e)	TOTAL NET GHG EMISSIONS IN 2003 (WITHOUT LUCF ¹⁷) Mt CO ₂ e ^{18, 19}	AMOUNT BY WHICH 2003 EMISSIONS ARE ABOVE OR BELOW KYOTO TARGET
	EMISSIONS Megatonnes of carbon dioxide equivalent CO ₂ e	% above or below base year emissions			% +/-
Australia	423.4	+8	457.3	550.1	20.3
Austria	78.5	-13	68.3	91.56	34.0
Belgium	146.1	-7.5	135.1	147.7	9.3
Bulgaria	141.8	-8	130.5	69.12	-47.0
Canada	595.9	-6	560.1	740	32.1
Croatia	31.6	-5	30.0	29.86	-0.5
Czech Republic	192.1	-8	176.7	147.14	-16.7
Denmark	69.6	-21	55.0	74	34.6
Estonia	43.5	-8	40.0	21.38	-46.6
EU 15	4238.0	-8	3899.0	4180	7.2
EU 25	5212.0	-8	4795.0	4925	2.7
Finland	70.5	0	70.5	85.58	21.5
France	568.0	0	568.0	557.66	-1.8
Germany	1248.3	-21	986.1	1017.51	3.2
Greece	111.7	+25	139.7	137.64	-1.4
Hungary	122.2	-6	114.9	83.24	-27.6
Iceland	3.3	+10	3.6	3.08	-14.6
Ireland	54.0	+13	61.0	67.55	10.8

¹⁶ Most Annex 1 countries have chosen 1990 as the base year from which Kyoto period reductions will be calculated. However, there are some variables in base line calculations. A few countries have chosen years other than 1990 as the base year (Poland, Bulgaria, Hungary, Romania and Slovenia) and others have noted that while 1990 is the base year for calculating non-fluorinated gases a later base year has been used for calculating emissions from fluorinated gases.

¹⁷ Land-use change and forestry.

¹⁸ All 2003 data (base year and 2003 emissions) have been extracted from the Annex I Party GHG Inventory Submissions to the UNFCCC consisting of the Common Reporting Format (CRF) data (table 10.5) or the individual National Inventory Reports (NIR) available at: http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/2761.php.

¹⁹ Data expressed in gigagrams (Gg) has been converted to megatonnes (Mt) of carbon dioxide equivalent.

Italy	510.5	-7.5	477.3	569.82	19.4
Japan	1187.2	-6	1116.0	1339.12	20.0
Latvia	25.0	-8	23.0	10.52	-54.3
Liechtenstein ²⁰	217.9	-8	200.5	218.48	9.0
Lithuania	50.9	-8	46.9	17.22	-63.2
Luxembourg	13.4	-28	9.6	11	14.0
Monaco	0.1	-8	0.1	0.13	57.0
Netherlands	212.0	-6	199.3	215	7.9
New Zealand	61.5	0	61.5	75.34	22.5
Norway	50.2	+1	50.7	54.8	8.2
Poland	564.4	-6	530.5	382.64	-27.9
Portugal	65.4	+27	83.1	88.23	6.2
Romania	265.1	-8	243.9	142.9	-41.4
Russian Federation ²¹	3049.7	0	3049.7	1876.46	-38.5
Slovakia	72.1	-8	66.3	51.64	-22.1
Slovenia	20.2	-8	18.6	19.8	6.6
Spain	286.1	+15	329.0	402.28	22.3
Sweden	72.1	+4	75.0	70.6	-5.8
Switzerland	52.4	-8	48.2	52.23	8.3
Ukraine	978.2	0	978.2	527.07	-46.1
UK	751.4	-12.5	657.5	651.1	-1.0
USA	6088.1	-7	5661.9	6900.22	21.9

²⁰ Latest available data is 1999

²¹ Latest available data is 1999