Canada in Bali: A Backgrounder on the 2007 UN Climate Negotiations

By Clare Demerse, Matthew Bramley and Dale Marshall
November 22, 2007

1. Context

The UN's annual climate negotiations will take place next month in Bali, Indonesia, at a time when concern about climate change among political leaders, citizens and scientists is higher than ever. The Nobel Prize-winning Intergovernmental Panel on Climate Change (IPCC) released the final installment of its Fourth Assessment Report in mid-November. The report concludes that the "warming of the climate system is unequivocal," and projects catastrophic impacts unless we secure deep reductions in greenhouse gas (GHG) pollution from human activities.

The UN Secretary-General, Ban Ki-moon, says that climate change is "the biggest challenge to humanity in the twenty-first century."[1] In the lead-up to Bali, the Secretary-General has called for an unprecedented response from the world's governments: "I need a political answer. This is an emergency and for emergency situations we need emergency action."[2]

In Bali, governments will have the chance to rise to the Secretary-General's challenge.

2. Launching negotiations on "Kyoto phase 2"

The 13th session of the Conference of Parties (COP 13) to the UN Framework Convention on Climate Change gets underway in Bali on Monday, December 3 and is scheduled to conclude on Friday, December 14. Indonesia's Environment Minister, Rachmat Witoelar, will preside over the meeting, and 130 other environment ministers are expected to attend, including Canada's John Baird. The first week of the Bali conference consists mainly of discussions among bureaucrats; the High-Level (ministerial) segment begins on December 12, although some ministers may arrive earlier.[3]

The first phase of the Kyoto Protocol ends in 2012. The Bali conference's main task is to launch negotiations for a post-2012 global climate agreement that expands and strengthens the Kyoto Protocol. These negotiations will not conclude in Bali: setting the rules and targets for "Kyoto phase 2" is expected to take two years. Success in Bali would be the adoption of a "Bali Mandate" for negotiation of an effective post-2012 agreement. The Bali Mandate must lay out key elements of that agreement, establish a workable process and set a firm end date of 2009.

At COP 11 in Montreal in 2005, countries agreed to avoid a gap between the first phase of Kyoto (2008–2012) and the second (post-2012). The 2009 deadline for negotiation of Kyoto phase 2 is necessary to allow nations enough time to ratify the agreement so it can enter into legal force before 2013.

The "ultimate objective" of the UN Framework Convention on Climate Change (UNFCCC), the umbrella agreement for the Kyoto Protocol, is to "prevent dangerous anthropogenic [human-caused] interference with the climate system." There is a growing consensus among climate scientists and governments that an increase in the global average temperature of 2°C (relative to the pre-industrial level) would have unacceptable consequences for people, economies and the environment.[4] According to the IPCC, global emissions will have to be cut by 50–85% relative to the 2000 level by 2050 to have a chance of staying within the 2°C limit. This will also require global emissions to peak by 2015 at the latest.[5]

At a preparatory meeting for Bali in August, governments highlighted the IPCC's analysis showing that industrialized countries need to reduce their GHG emissions by 25–40% below 1990 levels by 2020 to have a chance of avoiding a 2°C temperature increase.[6] Governments agreed that this analysis provides "useful initial parameters" for negotiations.[7]

To effectively prevent dangerous climate change, Kyoto phase 2 must strengthen existing key elements of the Kyoto Protocol: legally binding, absolute emission reduction targets for industrialized countries and flexible mechanisms to help reach them. The United States and Australia, which have not yet ratified the Kyoto Protocol, must join with other industrialized countries in accepting targets commensurate with the 25–40% reduction level (below 1990) identified by the IPCC. Newly industrialized countries — including South Korea, Singapore and Saudi Arabia, among others — must join the group of nations subject to binding absolute emission reduction targets.

Given the growth in emissions from countries such as China, India and Brazil, it's clear that major emitters among the developing countries also need to deepen their participation in the global effort, assisted by appropriate incentives. A key element of both the UNFCCC and the Kyoto Protocol is the principle of "common but differentiated responsibilities." Relative to industrialized countries, developing countries have far lower per-capita emissions, per-capita wealth and share of historical responsibility for global warming. In the near term, they should therefore not be subject to the binding absolute emission reduction targets that are appropriate for industrialized countries.

Instead, developing countries need to significantly reduce their emissions relative to business as usual through new effective forms of technology cooperation and deployment, including financing as well as goals and policies, and new mechanisms for clean development.

For the least developed countries, where emissions are extremely low, reducing emissions is not a priority. Instead, these countries require massively increased support for adapting to the impacts of climate change. The IPCC has shown that the world's poorest countries will be hit the hardest by the impacts of a crisis they have done the least to create.

3. Elements of the Bali Mandate

The Climate Action Network International (CAN), a coalition of more than 400 NGOs working in 85 countries worldwide, has elaborated detailed proposals on how to secure an effective post-2012 agreement.[8] CAN believes that the Bali Mandate must contain at least the following key elements:[9]

- Deeper absolute emission reduction targets for all industrialized countries, including the United States and Australia (these are known as Annex B countries, after the Annex of the Kyoto Protocol that lists them).
- An expansion of Annex B to include newly industrialized countries.
- Fair and transparent criteria to set targets for Annex B countries in light of national circumstances while ensuring that overall emission reductions are consistent with preventing dangerous climate change.
- New mechanisms and incentives to support deepened participation by developing countries.
- Fair and transparent criteria for differentiating types of commitments among developing countries. Rapidly developing countries should participate in quantified actions to limit emissions; least-developed countries should focus on adaptation to climate change; and other developing countries should participate in new mechanisms to promote their sustainable development.
- A mechanism to provide adequate incentives to curb tropical deforestation, with Annex B countries contributing an appropriate amount.
- A continued Clean Development Mechanism (CDM), reformed as needed to ensure its environmental effectiveness. (The CDM allows countries with Kyoto targets to invest in emission-reduction projects in developing countries and count the resulting reductions towards their national targets.)
- A mechanism to ensure that the most vulnerable developing countries are given the support they need to adapt to unavoidable climate impacts.
- An effective compliance regime.
- Scientific review of the overall level of ambition.

At COP 11 in Montreal in 2005, countries established two tracks to discuss the post-2012 agreement. An Ad-Hoc Working Group (AWG) was created under the Kyoto Protocol (therefore excluding the U.S.) to examine future emission reduction commitments for Annex B countries. In addition, a Dialogue on Long-Term Cooperative Action was created under the UNFCCC (including the U.S.), but its mandate explicitly ruled out any negotiation of commitments.

CAN is proposing that, in Bali,

- the mandate of the AWG be broadened to include the determination of criteria for newly industrialized countries to "graduate" to absolute emission reduction targets, differentation of those targets and analysis of Kyoto's existing flexible mechanisms
- the Dialogue be turned into a formal negotiation on those elements of the Bali Mandate that it has already been discussing
- new working groups be created to negotiate the remaining elements of the Mandate

- all these groups should report back at COP 14 in 2008 (to be held in Poznan, Poland), where a Committee of the Whole should initiate a new stage of combined negotiations to end in 2009.

4. Canada's position

Analysis published in 2005 by the Pembina Institute and the David Suzuki Foundation showed that, for Canada to play a responsible part in the global effort against dangerous climate change, it must take on targets of at least 25% below the 1990 level by 2020 and 80% below 1990 by 2050.[10] These coincide with the IPCC's more recent conclusion that industrialized countries need to reduce their GHG emissions by 25–40% below 1990 levels by 2020, and by 80–95% below 1990 by 2050, to have a chance of avoiding a 2°C temperature increase.[11,12]

Although Minister Baird has expressed support for the IPCC's findings in general,[13] his 2020 and 2050 targets for Canada fall far short of the IPCC's analysis. In its April 2007 climate policy announcement, the government set targets to limit national emissions to 20% below the 2006 emission level in 2020 (equivalent to about 2% above the 1990 level) and 60–70% below the 2006 level in 2050 (equivalent to about 49–62% below 1990).[14,15]

Table 1 compares Canada's targets both to the IPCC's analysis and the commitments made by leading governments in industrialized countries. Canada's 2020 target fares very poorly in this comparison; Canada's 2050 target is also less ambitious that those adopted elsewhere.

Table 1. Post-2012 GHG emission reduction commitments by governments in industrialized countries.

	% reduction in emissions 1990–2020	% reduction in emissions 1990–2050
IPCC (to stabilize GHG levels at 450 ppm CO_2e[a])	25–40	80–95
Canada	approx. −2 (2% increase)	approx. 49–62
British Columbia[16,17]	10	73
California[18]	0	80
EU[19,20] (27 countries)	20–30	60–80
France[21]	–	75–80[b]
Germany[22]	40	–
Netherlands[23]	30	–
New England states/Eastern Canadian provinces[24]	"at least" 10	75–85[c]
Norway[25]	30	100
Ontario[26]	15	80
UK[27,28]	26–32	"at least" 60

[a] Parts per million of carbon dioxide equivalent.
[b] No base year was explicitly stated for this target. However, France's emissions in 2004, the year when the target was adopted, were about 1% below the 1990 level.[29]
[c] The 2050 target is a "reduction in GHG emissions relative to 2001 levels compatible with a 75–85% worldwide target reduction in emissions, subject to further scientific analysis of this target."

In addition to its 2020 target (see Table 1) the EU has stated its support for a 2°C limit on global warming (relative to the pre-industrial level), and has adopted a target of global emission reductions of 50% below the 1990 level by 2050.[30] This global target is consistent with the

IPCC's finding that global emissions will have to be cut by 50–85% relative to the 2000 level[31] by 2050 to have a chance of staying within the 2°C limit.

To date, the Government of Canada has refused to take a position on the 2°C limit on global warming. Canada has never publicly defined the level of climate change that it considers to be "dangerous" for the world or for Canadians.

The Government of Canada has endorsed a global target to "cut global emissions in half by 2050," both in its October Speech from the Throne[32] and at the G8 summit in Germany in June.[33] However, the government has never publicly specified the base year it is using when it calls for a halving of global emissions by 2050; 50% below the 2006 emission level, for example, is a significantly weaker target than 50% below the 1990 level. This ambiguity makes it impossible to judge whether Canada's proposed global target is in line with the IPCC's findings.

Canada has added to the confusion by seeming to equate a 50% reduction in Canada's emissions (the government's 2050 target for Canada's emissions, 60–70% below the 2006 level, is equivalent to a 49–62% reduction below 1990) with a 50% reduction in global emissions.[34]

If this is indeed the government's approach, it appears to violate a fundamental principle of the UNFCCC and the Kyoto Protocol, that of "common but differentiated responsibilities" amongst nations for emission reductions. Both treaties require that industrialized countries — with their higher per-capita emissions, per-capita wealth and share of historical responsibility for global warming — take the lead in reducing emissions. If the world is to reduce emissions by 50% below 1990 in 2050, a country like Canada, with levels of per-capita emissions and wealth that are among the highest in the world, must reduce emissions by much more than 50%. (As explained above, we believe that Canada must take on a target of at least 80% below the 1990 level by 2050.)

The same conflict with the principle of "common but differentiated responsibilities" is discernible in the government's approach to countries' commitments. In the Speech from the Throne, the government stated that "an effective global approach to greenhouse gas emissions must have binding targets that apply to all major emitters, including Canada."[35] Although countries such as China and India are major emitters and need to significantly reduce their emissions growth, they should not, in the near term, be subject to the absolute emission reduction targets that are appropriate for industrialized countries. By remaining silent on this point, Canada's position could be interpreted both as running counter to the UNFCCC and as setting conditions that developing countries cannot accept.

However, Minister Baird has recently begun to acknowledge the need to differentiate action between industrialized and developing countries. For example, he was quoted on November 12 as saying: "Canada is a rich country. We should go farther faster than developing countries, but we need them on board paddling in the same direction."[36] It remains to be seen how the government will develop this thinking in the Bali negotiations.

While the government has agreed that the Bali conference should "launch negotiations toward a global and comprehensive post-2012 agreement,"[37] it has said very little about the contents of the

Bali Mandate or the nature of the agreement that Canada is seeking. This is in contrast, for example, to the EU, which has listed the eight building blocks that it believes should form the basis of the post-2012 global agreement.[38] To date, Canada's statements have been limited to:

- calling for "a new international agreement that cuts global emissions in half by 2050," and that "must have binding targets that apply to all major emitters" including Canada,[39] the U.S. and China,[40] and
- promising that "Canada will do everything in its power to help develop an effective, all-inclusive, international framework that recognizes national economic circumstances."[41]

5. Canada's credibility

The current federal government has consistently made clear that it will not attempt to meet Canada's Kyoto phase 1 target.[42] It has ruled out any public funding for emission-reduction projects in developing countries that would count towards Canada's target (through Kyoto's Clean Development Mechanism). The government has also failed to make any commitment to accept Kyoto's penalties for non-compliance with targets.

As the only nation to have agreed to be legally bound by a Kyoto target and then reneged on it, Canada enters the negotiations in Bali with severely weakened credibility. Any effort to persuade other major emitters to take on new commitments will surely be hampered by the government's rejection of its own existing obligations.

Canada will also arrive in Bali with an emission-reduction plan that every independent reviewer has found will fall short of even the targets that the government has substituted for Kyoto's. After performing a modelling analysis for the C.D. Howe Institute, economist Mark Jaccard concluded that the government's plan would allow Canada's emissions remain indefinitely *above* current levels.[43] The Deutsche Bank's analysis of the plan reached a similar conclusion:

> *...because the "Turning the Corner" plan allows for the offsetting of emissions at what we think is too low a price to incentivize investment in new low-carbon technologies, we think that even these much less ambitious targets will probably not be achieved. In short, under current policies we would expect Canada's industrial GHG emissions to continue rising over 2006–20.*[44]

The Pembina Institute's own analysis uncovered numerous loopholes and gaps that undermine the credibility of the government's target for 2020, and concluded that the government's proposed policies have little chance of meeting its near-term target of stopping the growth in Canada's GHG pollution by 2010–12.[45]

A key factor in these conclusions is the government's decision to rely on "intensity" targets (targets for emissions per unit of production) instead of absolute emission targets for industry. Intensity targets allow emissions to continue to rise when industrial production is increasing rapidly.

Finally, the National Roundtable on the Environment and the Economy (NRTEE) scrutinized each element of the government's emission-reduction plan. Of the 23 measures in the plan, the NRTEE concluded that the government had "likely overestimated" the emission reductions from

seven of the measures (including all three regulatory measures), and that there was "insufficient information to reach a conclusion" on the ability of 15 of the measures to reach their targets.[46]

6. Conclusion

Writing in the *National Post* newspaper last month, Minister Baird stated that "Canada is well placed to be a bridge between those nations that are signatory to Kyoto and those that aren't."[47] The U.S. is the best-known Kyoto outlier and one of the world's top two emitters, so it was almost certainly one of the nations that Minister Baird had in mind. However, a comparison of Canada's position with that of the U.S. and the EU finds Canada aligned much more closely with the current U.S. Administration's position than the more climate-friendly policies of the EU. (This comparison is presented on the next page.) Clearly, Canada's credibility as a bridge is in doubt.

In addition to seeking to be a bridge between nations, the Government of Canada wants to be recognized as a "leader" in the global effort to combat climate change. In a recent speech, Prime Minister Harper stated: "We want to be a world leader in the fight against global warming and the development of clean energy. We want to lead, not by lecturing, but by example."[48] Minister Baird has gone even further and claimed that Canada is already a leader, writing that "Canada has taken a leadership role on the international front as an important player in the effort against climate change."[49]

The Prime Minister's desire to lead others is seriously undermined by Canada's track record on Kyoto phase 1, the weakness of its current targets for post-2012, and the failing grade that the government's plan has received from four independent analyses. The Bali conference provides an unparalleled opportunity for the Government of Canada to bring its climate policies in line with its rhetoric.

Until that happens, Canada will negotiate from a position of weakness in Bali.

Canada as a Bridge?

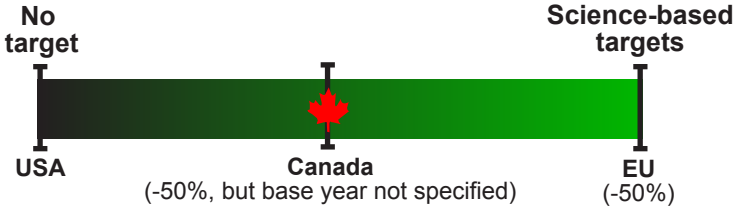
(as of November 21, 2007)

1. Commitment to Kyoto targets (2008–2012): Without a commitment to reducing emissions in the first phase of Kyoto (2008–2012), it is difficult for any country to credibly engage in negotiating subsequent phases of Kyoto.

2. Support for limiting global warming to 2°C: Based on scientific analysis of the impacts of global warming, an average temperature increase of 2° Celsius above the pre-industrial level is widely recognized as the threshold that constitutes "dangerous" climate change, although significant impacts will happen even at lower levels of warming.

3. 2020 GHG reduction targets compared to 1990: The Intergovernmental Panel on Climate Change has advised governments that emission reductions of at least 25% below the 1990 level by 2020 are required from industrialized countries to have a chance of avoiding 2°C of global warming.

4. 2050 global GHG reduction target compared to 1990: To avoid 2°C of warming, global emissions will need to be reduced to at least 50% below the 1990 level by 2050. To reach that target, industrialized countries will have to take on targets of at least 80% below the 1990 level by 2050. Canada has created confusion by mixing the global reductions we need with the reductions required from industrialized countries.

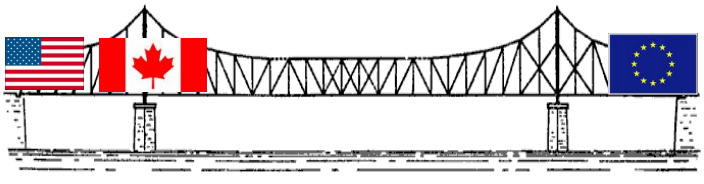


5. Use of 1990 base year for setting targets: The world has consistently used 1990 as the base year for emission reductions. Canada is masking weak domestic targets by changing its base year to 2006 and thus ignoring emission increases since 1990. Canada's global emission target – to "cut global emissions in half by 2050" – is presented without any base year, which makes it extremely ambiguous.

6. Clear support for strengthening and expanding the Kyoto Protocol after 2012: Negotiations for a second phase of the Kyoto Protocol are getting underway in Bali, Indonesia in December. The EU has expressed clear support for stronger targets under an expanded Kyoto architecture. Canada supports launching negotiations in Bali and binding targets for major emitters, but has not stated support for continuing the Kyoto Protocol's architecture after 2012.

7. Use of intensity targets for industry: Absolute emission reductions are needed to stop the growth in GHG pollution. An intensity approach allows emissions to continue to rise. The USA has intensity-based industry and national targets. Canada's industry targets are also intensity-based (despite its national targets being absolute). The EU has absolute targets for industry.

SUMMARY OF POSITIONS:



[1] UN News Centre, "Opening remarks at joint press conference following high-level event on climate change," statement, September 24, 2007. Also available online at http://www.un.org/apps/news/infocus/sgspeeches/statments_full.asp?statID=124.
[2] Juan Jose Lagorio, "UN's Ban Says Global Warming Is "An Emergency"," Reuters, November 11, 2007.
[3] UNFCCC Secretariat, "What Will Bali be about?," news release, undated. Also available online at http://unfccc.int/files/meetings/cop_13/press/application/pdf/071025__media_info_on_bali.pdf.
[4] Matthew Bramley, *The Case for Deep Reductions: Canada's Role in Preventing Dangerous Climate Change* (Vancouver, BC and Drayton Valley, AB: The Pembina Institute and David Suzuki Foundation, 2005), 17–18. Also available online at http://climate.pembina.org/pub/536.
[5] Intergovernmental Panel on Climate Change, "Summary for Policymakers," in Metz et al., eds, *Climate change 2007: Mitigation. Contribution of Working group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, UK and New York, NY: Cambridge University Press, 2007), 23. Also available online at http://www.ipcc.ch.
[6] The IPCC's analysis applied to stabilization of the atmospheric concentration of GHGs at 450 parts per million of carbon dioxide equivalent. This will be necessary to have a better than 50 percent chance of limiting average global warming to 2ºC relative to the pre-industrial level. See Bill Hare and Malte Meinshausen, "How Much Warming are We Committed to and How Much can be Avoided?," *Climatic Change* 75, nos 1–2 (2006): 111.
[7] UNFCCC Secretariat, *Report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on the first part of its fourth session, held at Vienna from 27 to 31 August 2007*, FCCC/KP/AWG/2007/4. Also available online at http://unfccc.int/resource/docs/2007/awg4/eng/04.pdf.
[8] The Pembina Institute and the David Suzuki Foundation are members of CAN.
[9] Climate Action Network International, *Views regarding the scope and content of the second Review of Article 9 under the Kyoto Protocol* (Brussels: Climate Action Network International, 2007). Also available online at http://www.climatenetwork.org/climate-change-basics/by-meeting/awg-vienna-august-2007/2007%20Mandate%20Submission%20FINAL.pdf.
[10] Bramley, *The Case for Deep Reductions*.
[11] Gupta et al., "Policies, Instruments and Co-operative Arrangements," in Metz et al., eds, *Climate change 2007: Mitigation. Contribution of Working group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, UK and New York, NY: Cambridge University Press, 2007), 776. Also available online at http://www.mnp.nl/ipcc/pages_media/AR4-chapters.html.
[12] See note above on the relation between stabilization of GHG concentration and the 2ºC limit.
[13] Environment Canada, "Canada's Environment Minister Welcomes the Report of the Intergovernmental Panel on Climate Change (IPCC)," news release, November 17, 2007. Also available online at http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=4754DC3D-1349-49F2-A6D7-18AEB83B7405.
[14] Government of Canada, *Regulatory Framework for Air Emissions* (Ottawa, ON: Government of Canada, 2007), 4. Also available online at http://www.ec.gc.ca/doc/media/m_124/report_eng.pdf.
[15] Recalculation of the targets relative to the 1990 level is explained in Matthew Bramley, *Analysis of the Government of Canada's April 2007 Greenhouse Gas Policy Announcement* (Drayton Valley, AB: The Pembina Institute, 2007), 3–4. Also available online at http://climate.pembina.org/pub/1464.
[16] The 2020 target is stated in the Speech from the Throne, February 13, 2007. Available online at http://www.leg.bc.ca/38th3rd/4-8-38-3.htm.
[17] The 2050 target is stated in Office of the Premier, "B.C. Introduces Climate Action Legislation," news release, November 20, 2007. Also available online at http://www2.news.gov.bc.ca/news_releases_2005-2009/2007OTP0181-001489.htm. We have recalculated this target relative to the 1990 level based on a 35% increase in British Columbia's emissions between 1990 and 2007. This value is an estimate by the Pembina Institute based on Environment Canada's *National Inventory Report 1990–2005: Greenhouse Gas Sources and Sinks in Canada* and Natural Resources Canada's *Canada's Energy Outlook: The Reference Case 2006*.
[18] The 2020 target is enshrined in the *California Global Warming Solutions Act Of 2006*. The 2050 target was established by Governor Schwarzenegger's Executive Order S-3-05 (June 1, 2005).
[19] Council of the European Union, "Brussels European Council 8/9 March 2007 — Presidency Conclusions," news release, May 2, 2007. Also available online at http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/93135.pdf.

[20] For 2020, heads of government committed to reduce the EU's emissions by 20%, and to raise this to 30% in the context of a satisfactory "global and comprehensive agreement for the period beyond 2012." The numbers cited for 2050 are not a commitment but represent EU heads' of government view of the reduction that should be achieved by developed countries as a whole.
[21] Mission interministerielle de l'effet de serre, *Plan Climat 2004* (Paris, France: Mission interministerielle de l'effet de serre, 2004), 68. Also available online at http://www.ecologie.gouv.fr/IMG/pdf/plan_climat.pdf.
[22] Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, "Sigmar Gabriel: climate protection also benefits consumers and the economy," news release, August 24, 2007. Also available online at http://www.bmu.de/english/current_press_releases/pm/39956.php.
[23] Ministry of Housing, Spatial Planning and the Environment, *Clean and Efficient: New energy for climate policy*, Ministry of Housing, Spatial Planning and the Environment, http://www2.vrom.nl/pagina.html?id=11023 (accessed November 19, 2007).
[24] New England Governors and Eastern Canadian Premiers' *Resolution Concerning Energy and the Environment* (Resolution 31–1, June 26, 2007). Available online at http://www.negc.org/documents/NEG-ECP_31-1.pdf.
[25] Ministry of the Environment, "New measures to reach Norway's ambitious climate targets," news release, June 22, 2007. Also available online at http://www.regjeringen.no/en/dep/md/Press-Centre/Press-releases/2007/New-measures-to-reach-Norways-ambitious--2.html?id=473402.
[26] Office of the Premier, "Mcguinty Government Sets Ambitious, Realistic Greenhouse Gas Targets," news release, June 18, 2007. Also available online at http://www.premier.gov.on.ca/news/Product.asp?ProductID=1397.
[27] Climate Change Bill (HL Bill 9, November 15, 2007). Available online at http://www.publications.parliament.uk/pa/ld200708/ldbills/009/2008009.pdf.
[28] The targets apply to carbon dioxide plus "any other greenhouse gas designated as a targeted greenhouse gas by order made by the Secretary of State".
[29] See UNFCCC Secretariat, *GHG total without LULUCF*, UNFCCC Secretariat, http://unfccc.int/ghg_emissions_data/ghg_data_from_unfccc/time_series_annex_i/items/3841.php (accessed November 19, 2007).
[30] Council of the European Union, "2826th Council meeting — Environment," news release, October 30, 2007. Also available online at http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/envir/96961.pdf.
[31] This is equivalent to about 43–83% below the 1990 level, based on a 13.3% increase in global CO_2 emissions (including international bunkers but not land-use change and forestry) between 1990 and 2000. This increase was calculated from the Climate Analysis Indicators Tool Version 4.0 (Washington, DC: World Resources Institute, 2007), http://cait.wri.org.
[32] Speech from the Throne, October 16, 2007. Available online at http://www.sft-ddt.gc.ca/eng/media.asp?id=1364.
[33] *Growth and Responsibility in the World Economy*, Summit Declaration (7 June 2007), 15. Available online at http://www.g-8.de/Content/EN/Artikel/__g8-summit/anlagen/2007-06-07-gipfeldokument-wirtschaft-eng,templateId=raw,property=publicationFile.pdf/2007-06-07-gipfeldokument-wirtschaft-eng.
[34] The Prime Minister referred in a news release to other G8 Leaders' recognition of Canada's *domestic* 2050 target. (See Office of the Prime Minister, "The 2007 G8 Summit," news release, June 8, 2007. Also available online at http://www.pm.gc.ca/eng/media.asp?category=1&id=1688.) But the previous day's G8 summit declaration made reference to Canada's support for halving *global* emissions. The Prime Minister has also claimed that Canada's 2050 target is consistent with a 50% reduction in global emissions below 1990. See Office of the Prime Minister, "Prime Minister Stephen Harper calls for international consensus on climate change," speech, June 4, 2007. Also available online at http://www.pm.gc.ca/eng/media.asp?category=2&id=1681.
[35] Speech from the Throne, October 16, 2007. Available online at http://www.sft-ddt.gc.ca/eng/media.asp?id=1364.
[36] Donna Jacobs, "'We're off the bench and into the game'", *Ottawa Citizen*, November 12, 2007.
[37] Office of the Prime Minister, "2007 EU-Canada Summit Statement," statement, June 4, 2007. Also available online at http://www.pm.gc.ca/eng/media.asp?category=3&id=1683.
[38] Council of the European Union, "2826th Council meeting — Environment," news release, October 30, 2007. Also available online at http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/envir/96961.pdf.
[39] Speech from the Throne, October 16, 2007.
[40] Office of the Prime Minister, "PM addresses the Council on Foreign Relations," speech, September 25, 2007. Also available online at http://www.pm.gc.ca/eng/media.asp?category=2&id=1830.
[41] Ibid.

[42] For example, in 2006–07 government members of parliament voted repeatedly against bill C-288 (the *Kyoto Protocol Implementation Act*), a law that requires the government to draw up and implement an emission-reduction plan strong enough for Canada to meet its Kyoto target.
[43] Mark Jaccard and Nic Rivers, *Estimating the Effects of the Canadian Government's 2006–2007 Greenhouse Gas Policies*, (Toronto: C.D. Howe Institute, 2007), Figure 2. Also available online at http://www.cdhowe.org/pdf/ebrief_46.pdf.
[44] Mark C. Lewis, *A Propensity for Intensity: the Canadian Carbon Conundrum*, (London, UK: Deutsche Bank, 2007), 1.
[45] Matthew Bramley, *Analysis of the Government of Canada's April 2007 Greenhouse Gas Policy Announcement*.
[46] National Roundtable on the Environment and the Economy, *Response of the National Roundtable on the Environment and the Economy to its obligations under the Kyoto Protocol Implementation Act*, (Ottawa, ON: NRTEE, 2007). Also available online at http://www.nrtee-trnee.ca/eng/publications/c288-response-2007/NRTEE-C288-Response-2007-eng.pdf.
[47] John Baird, "A realistic plan for protecting the environment," *National Post*, October 26, 2007, A19.
[48] Office of the Prime Minister, "Notes for an Address by the Right Honourable Stephen Harper, Prime Minister of Canada, to the APEC business summit," speech, September 7, 2007. Also available online at http://www.pm.gc.ca/eng/media.asp?category=2&id=1814.
[49] Baird, "A realistic plan for protecting the environment."