Climate Change at the G8 Leaders’ Summit in Hokkaido, Japan (July 7–9, 2008)

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Introduction
The 2008 G8 summit comes at a critical time in the global fight against climate change. Countries are now six months into a two-year UN negotiation for a post-2012 global climate agreement. (Launched last December in Bali, the process is scheduled to conclude in Copenhagen in December 2009.) The science has never been more emphatic, and public concern continues to run high. The United States, for years an obstacle to progress, will make the choice of its next president between two candidates who are committed to meaningful action on global warming. In Canada, political parties are actively debating the best way to put a price on carbon (i.e., greenhouse gas (GHG) pollution).

“Environment and climate change” is one of four themes for the 2008 G8 Leaders’ Summit in Hokkaido, along with “world economy,” “development and Africa,” and “political issues.” Specifically, the host country is hoping to “[t]ake initiatives in addressing global environmental issues, in particular, promote discussions at the UN process to create an effective framework beyond 2012.”

This backgrounder examines three of the key climate-related issues expected to arise at the Hokkaido G8 summit: long-term targets, funding for developing countries, and the U.S.-led Major Economies process. It concludes with a list of key questions to consider when reviewing any potential summit communiqué on climate change.

A. Long-term greenhouse gas targets
In 2007, G8 leaders meeting in Germany agreed to “consider seriously the decisions made by the European Union, Canada and Japan which include at least a halving of global [GHG] emissions by 2050.”

In recent months, Japanese Prime Minister Yasuo Fukuda has shown a strong interest in long-term (2050) global GHG emission reduction targets through his initiative “Cool Earth 50.” Fukuda also announced a 2050 national target for Japan in June.

In light of the 2007 commitment to “seriously” consider a 2050 target, and given Japan’s strong interest in the area, a long-term global GHG target is expected to be a key climate change

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1 See Ministry of Foreign Affairs of Japan, Main Themes at Hokkaido Toyako Summit and Japan’s Objectives, Ministry of Foreign Affairs of Japan, http://www.g8summit.go.jp/eng/info/theme.html (accessed July 2, 2008).
3 The target, announced in a June 9 speech by Prime Minister Fukuda, is to reduce Japan’s emissions to 60–80% below current levels by 2050. The speech is available online at http://www.kantei.go.jp/foreign/hukudaspeech/2008/06/09speech_e.html.
outcome at this year’s G8 summit. Long-term GHG targets have also been a major focus of the Bush Administration’s Major Economies process (see Section C below).

It is important to note that the goal under discussion at the G8 meetings would represent an “aspirational” target for global emissions, not a binding target for any one country’s national emissions. By their nature, long-term targets create far less urgency for policy development than short- or mid-term targets. Although the G8’s environment ministers noted the need for the latter in a May communiqué, media reports have stated that nearer-term targets are not on the agenda for the Hokkaido Leaders’ Summit.

In contrast to the G8 talks, the UN negotiations launched in Bali are focused on the nearer term (from 2013 to as late as 2020), a time frame that is far more likely to drive climate action than a 2050 target. To more effectively support the UN process, G8 leaders would need to include mid-term GHG targets in their discussion and their final communiqué. A successful G8 summit for climate change would see mid-term targets given at least equal weight alongside the global goal, and would include support for a science-based target range for industrialized countries (see below).

While they are not sufficient on their own, long-term targets are useful in giving countries a sense of the magnitude of emission reductions that is needed. Clearly, any meaningful global target must be ambitious enough to prevent dangerous climate change. Based on scientific projections of the impacts of climate change, many jurisdictions have concluded that an increase in the global average temperature of 2°C, relative to the pre-industrial level, constitutes dangerous climate change and must be avoided. For example, G8 member states France, Germany, Italy and the United Kingdom recognize the 2°C limit as members of the European Union. Many of the world’s leading climate scientists have also endorsed the 2°C limit. (Despite advice supportive of a 2°C limit from officials at both Environment Canada and the Department of Foreign Affairs, the Government of Canada has never publicly stated what level of global warming it considers to be “dangerous.”)

The Intergovernmental Panel on Climate Change (IPCC), the world’s most authoritative climate science body, assessed a range of global long-term targets in its 2007 Fourth Assessment Report. The IPCC found that global emissions of carbon dioxide (the most important greenhouse gas) would have to be cut by 50–85% relative to the 2000 level (equivalent to about 43–83% below the 1990 level) by 2050 to have a chance of staying within the 2°C limit. The IPCC also noted

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5 The “ultimate objective” of the UN Framework Convention on Climate Change, which all G8 states are party to, is the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic [human-caused] interference with the climate system.”


8 Official advice in support of a 2°C limit on global warming was contained in briefing notes obtained by the Pembina Institute through the Access to Information Act. These notes are available on request from the author.

9 Our recalculation of this reduction relative to the 1990 level is based on a 13.3% increase in global CO₂ 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](http://cait.wri.org).
that, en route to the 2050 emission reduction, global emissions would have to peak by 2015 and decline thereafter. More recent analysis done for the UN Development Program (UNDP) found that global GHG emissions need to be cut by 50% below the 1990 level by 2050, with a peak before 2020, to have only a 50% chance of staying within the 2°C limit.\textsuperscript{11}

Thus, if the G8 summit does agree on a global long-term goal supported by the science of avoiding dangerous climate change, that goal would be in the range of at least 50\% below the 1990 level by 2050, with a peak in global emissions before 2020. The G8 leaders should complement this with an endorsement of a mid-term (2020) target range for industrialized countries that represents a fair share of that global long-term goal aligned with climate science.

The Government of Canada’s climate policy raises two concerns in any discussion of a global 2050 goal. The first is Canada’s current failure to accept a fair share of the emission reduction level needed to avoid dangerous climate change, and the second concerns the base year for a global target.

1. Canada’s share of a global target

A global GHG emissions target clearly has implications for both industrialized and developing countries. Under both the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, industrialized countries agreed to take the lead in reducing emissions, in recognition of their higher per-capita emissions, higher per-capita wealth and share of historical responsibility for global warming. The IPCC’s work shows that if global emissions are to be reduced to at least 50\% below the 1990 level, industrialized countries will have to make much deeper emission reductions. In its 2007 Fourth Assessment Report, the IPCC concluded 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.\textsuperscript{12,13} At the UN climate conference in Bali in December 2007, all the G8 countries except the U.S. agreed that the science-based range of 25–40\% below 1990 in 2020 should guide negotiations on future industrialized country targets, although Canada did so under protest.\textsuperscript{14}

In early June, Canada’s House of Commons voted on Bill C-377, a private members’ bill known as the Canadian Climate Change Accountability Act. This bill, tabled by NDP leader Jack

\textsuperscript{10} Intergovernmental Panel on Climate Change, “Summary for Policymakers,” in Metz et al., eds, \textit{Climate change 2007: Mitigation. Contribution of Working group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change} (New York, NY, USA: Cambridge University Press, 2007), 23. Also available online at \url{http://www.ipcc.ch}.


\textsuperscript{13} 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 2°C 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?,” \textit{Climatic Change} 75, nos 1–2 (2006): 111.


\url{http://unfccc.int/resource/docs/2007/awg4/eng/05.pdf}.
Layton, would legislate targets for Canada’s emissions of 25% below the 1990 level in 2020 and 80% below 1990 in 2050. A majority of Canadian MPs, including all members present from the three opposition parties, voted in support this legislation and the science-based targets it contains.

Unfortunately, the Government of Canada’s targets for national GHG emissions fall short of both climate science and of commitments made by leading countries. The government’s current targets are to reduce national GHG emissions to 20% below the 2006 emission level in 2020 (equivalent to 3% below the 1990 level) and to 60–70% below the 2006 level in 2050 (equivalent to 51–63% below 1990).15,16

Under this approach, Canada’s 2050 target for its own emissions is not much different than the minimal science-based global reduction goal of 50% below 1990. But as noted above, achieving the 50% global cut requires industrialized countries to make far deeper cuts to their own emissions. Thus, the government’s current target levels for national emissions are too weak to allow Canada to make a fair contribution to a global goal consistent with avoiding dangerous climate change. By proposing to do less than its fair share, Canada is by implication asking other countries to do more than theirs to make up the shortfall.

A G8 decision to support a 2050 goal of 50% below 1990 would surely place increased pressure on Canada to strengthen its targets for national emissions to bring them into line with the global effort.

Among G8 members, the four EU members have all adopted science-based mid- and long-term targets for national and/or EU-wide GHG emissions that are far more ambitious than Canada’s national targets.17 The EU also supports a 2050 global GHG target of at least 50% below the 1990 level.18

2. Base year for the global goal

As noted above, the Government of Canada has endorsed a target of cutting “global emissions in half by 2050,” both in its October 2007 Speech from the Throne19 and at the G8 summit in Germany in June 2007. However, the government has never specified a base year for the global goal it supports, which makes that goal vague.

Halving global emissions relative to 1990, the internationally-recognized base year, is a considerably more ambitious goal than reducing emissions relative to 2006 emission levels. The

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16 Our recalculation of these targets relative to the 1990 level is based on a 21.8% increase in Canada’s emissions between 1990 and 2006. See Environment Canada, Canada’s 2006 Greenhouse Gas Inventory — A Summary of Trends (Ottawa, ON: Environment Canada, 2008), 2. Also available online at http://www.ec.gc.ca/pdb/ghg/inventory_report/2006/som-sum_eng.pdf.
government’s ongoing ambiguity on this question makes it impossible to judge whether Canada’s proposed global target is in line with the science. The 2007 G8 declaration also left the base year for its 2050 goal unstated, although, as noted above, the G8’s EU members are committed to a goal of at least 50% reductions relative to a 1990 base year.

If a global long-term target is to be a meaningful outcome of the 2008 G8 summit, it will require a clear base year. A science-based 2050 global target would need to be in the range of at least 50% below the 1990 level. At the G8 meeting, Canada could demonstrate support for a science-based target if it endorses a goal of halving global emissions relative to the 1990 level. On the other hand, a communiqué that lacks a base year or opts for a 2006 base year would fall short of what the science tells us we need.

B. Funding for addressing climate change in developing countries

When the UNFCCC entered into force in 1994, developed country signatories to the treaty became legally obliged to provide “new and additional” funding to help developing countries adapt to unavoidable climate change and to deploy “environmentally sound technologies.” For poorer countries, the Convention notes, “economic and social development and poverty eradication are the overriding priorities.” The UNFCCC has been ratified by virtually every country in the world, including all G8 members.

The importance of funding for climate adaptation and technology deployment in developing countries was thrown into sharp relief at the UN climate conference in Bali in December 2007. Bali launched a two-year negotiation process to determine the rules and targets that will take effect once the first phase of the Kyoto Protocol ends in 2012. In Bali, developing countries agreed to take on “nationally appropriate mitigation actions” — i.e., actions to reduce GHG emissions — provided that those actions are “supported and enabled by technology, financing and capacity-building” from developed countries.

Research by the UNFCCC secretariat, the UNDP, and non-governmental organizations (NGOs) such as Oxfam has established that the scale of funding needed for climate adaptation globally will be at least several tens of billions of US dollars per year by 2030 — much of it in developing countries. This is a reflection of the gravity of climate change impacts that cannot now be avoided even if GHG emissions are cut deeply and quickly. The UNFCCC secretariat also estimates that to return global emissions to current levels by 2030, “additional investment and financial flows” to reduce emissions in developing countries would need to be approximately US $100B per year by that date.

As the G8 host, Japan has made funding for action to combat global warming in poorer countries a summit priority. Prime Minister Fukuda has also unilaterally committed US $10B over the next five years for both adaptation to climate change (approx. $2B) and reducing emissions in

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20 See articles 3, 4, 5 and 7 of the UNFCCC.
23 Ibid., paragraph 13–14.
developing countries (approx. $8B).\textsuperscript{24} In its 2007 budget, the UK government also committed £800M (approx. $1.6B) to help tackle climate change in developing countries; the first project announced from this funding is a £50M investment in forest protection in the Congo.\textsuperscript{25}

During the preparation for the G8 Leaders’ Summit — which included summits of G8 environment ministers and finance ministers — countries agreed to work with the World Bank to develop new Climate Investment Funds, which include a Strategic Climate Fund and a Clean Technology Fund. Portions of the UK and Japanese pledges will be directed to these funds, and the U.S. government has also pledged $2B US over three years to the World Bank funds. (However, given the presidential race and the nature of U.S. budgeting, those dollars are not yet confirmed.) The World Bank is currently consulting on the development of its funds, and the three countries that have already made financial pledges are calling on their G8 peers to do the same.\textsuperscript{26}

The G8 Finance Ministers’ statement of June 14 warmly welcomed the development of the World Bank funds, noting that “substantial investment will be needed to provide access to clean energy, adaptation and tackling deforestation.”\textsuperscript{27} However, the ministers also noted that the UN is the appropriate forum for climate negotiations, and that the World Bank funds should be considered an interim measure intended to fill “an immediate financial gap for urgent actions until a new financial architecture under the post-2012 [UN climate] regime is effective.”\textsuperscript{28}

This language points to a critique of the World Bank funds raised by many environmental and development organizations: namely, the UN climate negotiations already underway are also working to establish financing mechanisms for technology transfer and adaptation. The UN process is widely viewed by NGOs as being more inclusive than the World Bank; many organizations also question the World Bank’s track record of investment, citing a perceived preference for fossil fuel investments over renewable energy and energy efficiency technologies. In addition, NGOs are raising concerns about the World Bank’s potential use of loans instead of grants for project funding. As rich countries are responsible for the vast majority of the emissions that have caused today’s climate change, adaptation funding can be considered payment for damages caused by those countries. This makes it far more appropriate to provide adaptation funding as a grant than as a loan which must later be repaid. It is also widely accepted that funding for climate adaptation in developing countries must be additional to existing Overseas Development Assistance (ODA) commitments, not a replacement for them.

Any G8 leaders’ statement concerning the World Bank’s funds will be carefully scrutinized to ensure that it contains at least equivalent references to the more inclusive UN process. For example, Oxfam International has recommended that the World Bank funds should include an

\textsuperscript{27} See G8 Finance Ministers’ Statement on the Climate Investment Funds (The Clean Technology Fund and the Strategic Climate Fund), Osaka, Japan, June 14\textsuperscript{th} 2008, paragraph 3. Available online at \url{http://www.mof.go.jp/english/if/su080614a.pdf}.
\textsuperscript{28} Ibid., paragraph 8.
explicit sunset clause which would phase them out as the post-2012 UN climate agreement kicks in. 29

Canada has not yet pledged money to combat global warming in developing countries on anything close to the scale required. And Canada’s existing spending on climate adaptation or emission reduction in developing countries is tiny compared to the billions of dollars being pledged by other G8 countries. The government phased out its Canada Climate Change Development Fund in March 2006, 30 and the Canadian International Development Agency expected to spend only $10M in fiscal year 2006–07 on an “Interim Strategy on Existing Climate Change Programs.” 31 Canada is currently providing about $14M per year to support climate programs through the Global Environment Facility (GEF), and in December 2007, Environment Minister John Baird announced an additional $7.5M contribution to the GEF’s Special Climate Change Fund. 32 Canada’s government has also ruled out any public spending through the Kyoto Protocol’s Clean Development Mechanism (CDM), an emissions trading system that allows industrialized countries to invest in projects in developing countries and count the resulting emission reductions towards their Kyoto targets. 33

As a result, Canada can be expected to face significant pressure at the G8 summit for a much more significant Canadian contribution to help developing countries cope with climate change.

C. Major Economies process

Under the presidency of German Chancellor Angela Merkel, the 2007 G8 summit had a strong focus on climate change. In May 2007, as part of the runup up to that meeting, U.S. President George Bush announced a new process that was initially known as the Major Emitters process (it was later renamed the Major Economies Meetings, or MEM). The MEM brought together about 20 of the world’s top GHG emitting countries 34 for a series of discussions on climate change, energy security, and the design of a post-2012 global framework. The first meeting was held in Washington in 2007, and the process is scheduled to culminate with a leaders’ statement on July 9 at the 2008 G8 summit.

Environmental organizations raised two major concerns about the MEM process from the start. First, it is well established that very poor countries, which tend to face greater climate impacts while having a lower capacity to adapt, are the most vulnerable to the effects of climate change. But by establishing a process that excluded all of these countries, President Bush effectively

29 Oxfam International, Oxfam International Concerns Around the Climate Investment Funds (unpublished briefing note provided to the author by Oxfam, June 2008).
33 While it has ruled out public spending through the CDM, the government does propose to allow Canadian firms to meet regulated GHG targets in part through the CDM.
“kept the victims out of the room” – reducing the likelihood of an outcome strong enough to protect them. The second concern arose from the fact that the U.S. was (at the time) one of only two major industrialized countries that had not ratified the Kyoto Protocol. Given American opposition to the Kyoto framework, concerns quickly emerged about whether the U.S. initiative was intended to undermine Kyoto’s approach of legally binding, near-term emissions reduction targets, and to replace it by a voluntary approach with only long-term, “aspirational” goals.

The 2007 G8 communiqué attempted to address this concern: while it “welcomed” the U.S. initiative, the communiqué also noted that it should include “an ambitious work program within the UNFCCC” [emphasis added].

The MEM has held frequent meetings throughout 2007 and 2008, with the most recent taking place in Seoul in June. According to media reports, the MEM declaration is unlikely to produce a breakthrough. Some speculate that the MEM’s communiqué, rather than the G8 Leaders’ declaration, will contain the G8 summit’s consensus position on a global 2050 emission target. (On the other hand, the declaration from the G8 environment ministers’ preparatory meeting in May noted that “[s]trong political will was expressed to... reach agreement on a shared vision of a long-term global goal at the G8 Hokkaido Toyako Summit.”)

Like long-term targets, sectoral GHG targets have emerged as a key issue at both the G8 and the MEM. Japan is a strong proponent of sectoral targets, and Prime Minister Fukuda made them a prominent part of his June 9 “Fukuda vision” speech, which outlined his climate change agenda. Fukuda explained that Japan calculated its potential for emission reductions by 2020 by assessing the potential emission reductions Japan could make by aggressively deploying energy-saving technologies and renewable energy. Then, “the potential emissions reductions were each tallied up, resulting in this percentage figure.”

The Bush administration has also shown a strong interest in “bottom-up” sectoral approaches, especially through its Asia-Pacific Partnership initiative.

At their preparatory meeting in Kobe, G8 environment ministers raised important cautions about this kind of sectoral approach to setting targets:

Bottom-up analyses of GHG emission reduction potentials can be useful tools for setting national emission reduction targets. In this context, a gap that might occur between emission reduction potentials based on a bottom-up approach on one hand and required emissions reductions levels calculated by a top-down approach [e.g., one based on the science of avoiding dangerous climate change] on the other must be bridged to assure environmental integrity. These gaps can be bridged by exploring further emission

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35 The other country, Australia, ratified Kyoto in December 2007, leaving the U.S. as the sole holdout among major industrialized countries.
37 See, for example, Jon Herskovitz and Kim Junghyun, “No major deal in Seoul on G8 climate draft —— sources,” Reuters, June 23, 2008.
40 See http://www.asiapacificpartnership.org/.
reductions using policies and measures, innovative technologies, and changes in lifestyle through national campaigns. It was clarified by a proponent of the sectoral approaches that sectoral approaches would be used to set national targets, not as a substitute for them.\footnote{See Chair’s Summary: \textit{G8 Environment Ministers Meeting, Kobe, Japan, May 24–26, 2008}, paragraph 16. Available online at \url{http://www.env.go.jp/en/focus/attach/080610-a2.pdf}.}

Environmental organizations have raised the same concerns about the sectoral approach even more forcefully, stating that appropriate GHG reduction targets must be based on what the science tells us is required rather than what industries calculate they can do.\footnote{For the sake of clarity, it should be noted that environmental organizations have given a cautious welcome to another kind of sectoral approach. Unlike Japan’s “bottom-up” proposal, the “sectoral-based approach” would see developing countries would agree to a voluntary global sectoral standard for a given sector’s emissions intensity in exchange for financial incentives from developed countries. By holding all industries to the same standard, this approach would aim to eliminate the incentive for industries to relocate to jurisdictions with lower environmental standards.}

Conclusion

The last major, ministerial-level international climate negotiation prior to this G8 summit, the 2007 UN climate conference in Bali, was not an easy meeting for Canada. Environment Minister Baird found himself isolated in the final session for his failure to support a target range of 25–40% GHG emission reductions below 1990 levels in 2020 for industrialized countries (a position that Canada reversed under international pressure), and Canada faced frequent criticism from other countries for its positions.\footnote{See Matthew Bramley, “Canada and the Bali Roadmap,” \textit{Behind the Headlines} 65, no. 1 (2008): 20. Available online at \url{http://climate.pembina.org/op-ed/1583}.}

That criticism continued in recent weeks, when an open letter signed by many of Canada’s most prominent and respected climate scientists noted that, “We are concerned that the pace with which action is being taken in Canada does not reflect adequately the urgency of the threat.”\footnote{From \textit{An Open Letter on Climate Change Science to all Canadian Elected Government Leaders} (June 2008), available online at \url{http://www.climateactionnetwork.ca/e/issues/letter-climate-science-06-2008.html}.}

Canada’s present government has acknowledged the threat of climate change, and has even declared its intention to be a leader on this issue. In a 2007 speech at another summit of heads of government — the APEC Economic Leaders Meeting — Prime Minister Stephen 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.”\footnote{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 \url{http://www.pm.gc.ca/eng/media.asp?category=2&id=1814}.}

The G8 is a high-profile opportunity for Canada to truly “turn the corner” and show genuine leadership on climate change among its peers. This will require significantly strengthening the government’s national GHG targets to bring them into line with a fair contribution to the global effort to prevent dangerous climate change; supporting an ambitious, science-based global GHG target for 2050 that includes a clear base year; and pledging a new and far more significant contribution to combating climate change in poorer countries. A failure to meet these tests would, unfortunately, represent a continuation of “business as usual” in the government’s inadequate climate change efforts on the world stage.

Key climate change questions: G8 Leaders’ Summit 2008

1. Does the communiqué include a long-term target for global GHG emissions?
   - Is that target aligned with the science-based requirement of at least a 50% reduction below the 1990 level by 2050?
   - Does the communiqué support a limit on average global warming of 2°C, relative to pre-industrial temperature levels?
   - Does the long-term emissions target have a clear base year?

2. Does the communiqué also include science-based mid-term (2020) targets for GHG emissions from industrialized countries?

3. Does the communiqué provide support for substantially increased funding by G8 countries for climate adaptation in developing countries?
   - Does the communiqué acknowledge the limitations of the World Bank process?
   - Does the communiqué discuss the interaction between the World Bank funds and the UN climate negotiation process?
   - Did Canada pledge a new contribution, and if so, how does it compare to other countries’ contributions? Are countries’ contributions additional to existing Overseas Development Assistance or a replacement for it?

4. What was the outcome of the Major Economies process?
   - Did this communiqué add significant momentum to the UN climate negotiations, or undermine them?