The G8 Research Group
LSE/Oxford

The G8 and Climate Change since Heiligendamm

Final Compliance Report for the G8 and Outreach Five Countries

3 July 2008

The G8 Research Group - LSE/Oxford is a network of more than 50 postgraduate students from Oxford and LSE interested in climate change policy and the G8 process. Its mission is to provide independent information and analysis on whether the G8 and Outreach Five countries are abiding by the climate policy commitments they made at the previous G8 summit.

www.g8.utoronto.ca/oxford/g8rg-oxford.html

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Foreword

Founded in 1987, the G8 Research Group is an organisation based at the University of Toronto with a mission to serve as the world's leading independent source of information, analysis, and research on the institutions, issues, and members of the G8. The Research Group consists of a global network of scholars, professionals in the media, business, government and research communities, and students interested in the ongoing activity of the G7 and G8. The group is assisted by a Professional Advisory Council and special advisors on specific issue areas.[1] Since 1996, the G8 Research Group has produced an annual compliance report on the progress made by the G8 member countries in meeting their summit commitments, which is offered to a global network of scholars, professionals in the media, business, government and research communities, and individual members of civil society.[2]

A separate branch of the G8 Research Group was established in 2004/05 at the University of Oxford. In 2007, its analyst base was expanded to include postgraduates from the London School of Economics (LSE), and the group now engages more than 50 postgraduates from both universities. Its primary mission is to provide information and analysis on whether the G8 and Outreach Five countries are abiding by the climate-related policy commitments they made at the previous G8 summit. In 2006, the group published a report that assessed whether these 13 countries and the European Union (EU) had abided by the commitments made at the 2006 St. Petersburg Summit, in areas such as promoting renewable energy and clean technologies, promoting sustainable transport, and obligations under the Kyoto Protocol.[3] In 2007-8, the group published similar compliance reports relative to the Heiligendamm Summit in June 2007, and thereby established itself as the source of the most comprehensive, independent information about the climate policy actions of the G8 and Outreach Five countries.

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[1] About the G8 Research Group, G8 Information Centre, (Toronto), 9 February 2007. Date of Access: 18 February 2008. http://www.g7.utoronto.ca/about/g8rg_about.htm.
[2] Maria Banda and Joanna Langille, Eds. (2007). Governing Global Climate Change: St Petersburg Compliance Report for the 'G8 Plus Five' Countries. G8 Final Compliance Report 2007. Oxford, G8 Research Group Oxford.
[3] The report titled Maria Banda and Joanna Langille, Eds. (2007). Governing Global Climate Change: St Petersburg Compliance Report for the 'G8 Plus Five' Countries. G8 Final Compliance Report 2007. Oxford, G8 Research Group Oxford is available online at: http://www.g8.utoronto.ca/oxford/2006compliance-ox.pdf.

Acknowledgements

The G8 Research Group - LSE/Oxford operates on a voluntary basis, and owes its existence to the time and energy provided by analysts. The Executive Committee wishes to thank all of the analysts for their commitment.

In addition, it wishes to acknowledge the generous support of LSE External Relations, in particular Robin Hoggard and Warwick Smith, for facilitating a group of our analysts to attend and report from the G8 Summit in Toyako, Japan 7-9 July 2008.

Finally, Christopher Wright, the Executive Director, wishes to acknowledge the Alcoa Foundation for its support of his participation in the G8 Research Group – LSE/Oxford.

Executive Summary

This comprehensive report considers whether the G8 and Outreach Five Countries (Brazil, India, China, Mexico, and South Africa) have complied with the climate change commitments they made at the G8 Heiligendamm Summit in June 2007. By implication, the report provides information and analysis that enable observers to hold governments to account for their policy commitments, as well as the G8 process as a whole. As such, the report, and the work of the G8 Research Group - LSE/Oxford more broadly, is premised on the principle that compliance of governments to their commitments made in multilateral for a has a bearing on their accountability relative to their citizens, as well as other governments. Furthermore, the extent to which governments follow-up the public commitments they make is an important criteria for evaluating both the legitimacy and effectiveness of the governance process.

The G8 Research Group LSE/Oxford is affiliated with the G8 Research Group based at the University of Toronto, which has tracked G8 compliance with various climate change commitments since 1987, alongside commitments in other policy areas, including security, trade and energy. The methodology applied rates country performance in compliance cycles, or the one-year time period between annual G8 Summits. The reports have recently been evaluated by Kirton and Guebert (2007),[4] who find an overall positive performance of G8 countries with respect to compliance to their climate change commitments.[5] In general terms, compliance with climate and energy commitments is higher than with those in all other policy areas, except trade. As a result, the meta-analysis concludes that the G8 process has been an effective multilateral forum for negotiating and reaching consensus on policy issues related to climate change and energy.

Since 2004/05, the G8 Research Group – LSE/Oxford has published an in-depth compliance report that considered the extent to which the G8 and Outreach Five countries had abided by their climate-related commitments from the 2006 St. Petersburg Summit. Compared to the previous reporting from the G8 Research Group in Toronto, these reports have tracked fewer commitments, but more substantially. Each country's policy actions relative to the respective policy commitments are rated as either -1 (non-compliance), 0 (partial compliance), or +1 (full compliance). In general terms, they provided for a less enthusiastic picture of compliance rates, as compliance has been mixed, and varied greatly across countries. For example, in the assessment conducted for last year's report, *Governing Global Climate Change: St. Petersburg Final Compliance Report for the 'G8 Plus Five Countries,* only the EU obtained full compliance on all selected issue areas. [6] In contrast, Canada

[4] Kirton, J. and Guebert, J., Compliance with Climate Change Commitments: The G8 Record, 1975–2007. Toronto: G8 Research Group, 13 December 2007, (Toronto). Date of Access: 22 February 2007. http://www.g8.utoronto.ca/evaluations/compliance-climate.html.
[5] Kirton, J. and Guebert, J., Compliance with Climate Change Commitments: The G8 Record, 1975–2007. Toronto: G8 Research Group, 13 December 2007, (Toronto). Date of Access: 22 February 2007. http://www.g8.utoronto.ca/evaluations/compliance-climate.html.
[6] Maria Banda and Joanna Langille, Eds. (2007). Governing Global Climate Change: St Petersburg Compliance Report for the 'G8 Plus Five' Countries. G8 Final Compliance Report

and Russia achieved an average score of only -0.40, having achieved three scores of 'work in progress,' and two scores of 'non-compliance' in the five selected issue areas. Similar divergence in performance was found among the Outreach Five countries, where Mexico led with an average score of + 0.20,[7] while China and India trailed behind with an average score of -0.20.[8]

The G8 and the EU: Main Findings

Overall, the G8 and the EU have followed-up on their commitments made at the Heiligendamm Summit, and introduced numerous supportive strategies, plans, and programmes. Compared to the previous year, compliance scores generally increased, yet the prevalence of "partial compliance" scores suggests that ambitious targets and notable policy statements have not been adequately followed-up by concrete policy actions and budgetary allocations.

G8 (+EU)	1A	1B	1C	1D	1E	Average
European Union	+1	+1	+1	+1	+1	**1.00**
Germany	0	+1	+1	+1	+1	**0.80**
Japan	0	+1	+1	0	+1	**0.60**
France	0	+1	0	+1	0	**0.40**
Canada	0	0	+1	0	0	**0.20**
United Kingdom	0	0	+1	0	0	**0.20**
United States	0	0	+1	0	0	**0.20**
Italy	0	0	0	0	0	**0.00**
Russian Federation	0	-1	0	-1	0	**-0.40**
Average	**0.11**	**0.33**	**0.67**	**0.22**	**0.33**	

Country Scores: The final results above reveal that the EU has done the most to fulfill its Heiligendamm commitments, and has earned a perfect average compliance score of +1. Conversely, the Russian Federation was the only G8 country that attained a negative score, as it was assessed to be non-

2007. Oxford, G8 Research Group Oxford.
http://www.g8.utoronto.ca/oxford/2006compliance-ox.pdf.

[7] Mexico achieved a score of 'work in progress' in four, and a score of 'full compliance' in one issue area.

[8] Both China and India achieved 'work in progress' in four, and was non-compliant in one issue area.

compliant with two commitments (1B and 1D). Germany, the hosts of the last G8 Heiligendamm Summit, received an overall compliance score of 0.80, suggesting that previous hosts may have additional incentives to follow-up summit commitments they themselves helped craft in order to ensure that the Summit receives a positive legacy. Japan received an overall score of 0.60, a relatively strong performance that can be explained by the roll-out of various policy actions aimed at demonstrating leadership ahead of the next G8 Summit in Japan. The United States and the United Kingdom both received overall scores of 0.20, and finally, Canada, France, and Italy were found to be in partial compliance with all the commitments, and therefore received an overall score of 0.00.

Commitment Scores: Across the G8 and the EU, compliance was the highest relative to the commitment to promote less emission-intensive energy consumption, as their overall score was 0.67 on a scale from -1 to +1. This observation suggests that industrialized countries are beginning to address how domestic markets and consumer behaviour are influencing trends in domestic GHG emissions, and how increasing the efficiency of energy consumption can be an important element in reducing domestic GHG emissions. Interestingly, both the United States and Japan, which have resisted the long-term global GHG emission targets proposed by the EU, were assessed to be in full compliance with the commitment to promote less emission-intensive energy consumption. More broadly, the growing prevalence of demand-side regulatory interventions suggests that countries are beginning to translate national policy targets into sector-level plans and programmes so as to enable a transition to a low-carbon economy.

governments have not matched their commitment to introduce and implement demand-side interventions with similar actions to address domestic GHG emissions. Apart from the European Union, which has announced it will reduce the number of allowances in the second phase of the EU Emissions Trading Scheme (EU ETS), no G8 government received more than a 'partial' compliance score with the commitment to stabilize GHG emissions. Compliance was assessed against the respective government's commitments and actions to avert dangerous climate change. In general terms, the analysis revealed that while most governments have set long-term emissions reductions targets (typically for either 2020 or 2050), lack of full compliance resulted from either setting targets that do not reflect the urgency of the problem, or failing to identify how targets will be achieved. This may suggests that it is proving politically difficult for governments to confront emission-intensive sectors and to implement the structural reforms necessary to transition to a low-carbon economy.

With regards to the commitment to curb deforestation, the overall compliance score was 0.33, which reflects the prevalent position that forestry had on the agenda at the United Nations Climate Change Conference in Bali. Both the European Union and Japan were assessed to be in full compliance with this commitment, largely on the basis of initiating and implementing bilateral projects and programs with developing countries to help reduce deforestation. Compliance scores for the commitment to promote less emission-intensive energy production was driven by the proliferation of supportive regulation for

renewables in Europe and Japan, in addition to the absence of such in Russia. And finally, the relatively low score associated with support for adaptation in developing countries reflects how several G8 governments have failed to follow-through on pledges made at Bali to make funds available.

The Outreach Five Countries: Main Findings

Compared to the previous compliance cycle (2006-07), the Outreach Five countries have done well to follow-up on their commitments made at the Heiligendamm Summit, and introduced numerous supportive strategies, plans, and programmes. Compliance scores generally increased, yet as with the G8 and the EU, the prevalence of "partial compliance" scores suggests that ambitious targets and notable policy statements have not been adequately followed-up by concrete policy actions and budgetary allocations. But notably, none of the Outreach Five countries were found to be non-compliant with any of three commitments.

Outreach Five	2A	2B	2C	Average
China	+1	+1	0	**0.66**
Mexico	0	+1	0	**0.33**
Brazil	0	0	0	**0.00**
India	0	0	0	**0.00**
South Africa	0	0	0	**0.00**
Average	**0.20**	**0.40**	**0.00**	

Country Scores: The final results reveal that China has done the most among the Outreach Five countries to fulfill its Heiligendamm commitments, and has earned a compliance score of 0.66, including full compliance in all but one commitment (2C). This can be largely attributed to the release of its National Climate Change Programme, which identified policy goals and measures to reduce GHG emissions and adapt to climate change. For example, it outlines a plan to raise the proportion of renewable energy in primary energy supply by 10 %, by 2010, and includes specific recommendations for reducing emissions in key industrial sectors. [9] Meanwhile, Mexico received the second highest overall score – 0.33 – as a result of being assessed to be in full

[9] However, just recently, China announced its intention to expand emission-intensive coal-to-liquid production, including the construction of a CTL plant in Inner Mongolia, the biggest of its kind outside South Africa. See China builds plant to turn coal into barrels of oil, Reuters, (Beijing), 5 June 2008. Date of Access: 2 June 2008. http://www.planetark.com/dailynewsstory.cfm?newsid=48644&newsdate=05-Jun-2008.

compliance with its commitment to reduce the emission-intensity of domestic energy production. The remaining three countries, India, Brazil, and South Africa, were found to be in partial compliance with all the commitments and therefore each obtained an overall score of 0.00.

Commitment Scores: Across the Outreach Five countries, compliance was the highest relative to the commitment to promote less emission-intensive energy production, with an average score of 0.40 on a scale from -1 to +1. This was driven by policies and programs that facilitate inward investment in renewable energy and clean technologies, and the introduction of national targets for expanding the share of energy derived from renewable sources. For example, Mexico introduced an Energy Sector Programme (the *Programa Nacional de Infraestructura),* which sets long-term targets for renewables, refinery efficiency, and forestations. More generally, the relatively high compliance score associated with this commitment suggests that large developing countries are beginning to realize how their growing domestic GHG emissions associated with rapid economic growth and industrialization (or deforestation in the case of Brazil) may be regulated in a post-2012 international climate regime. On the other hand, the current focus on renewable energy may not be driven by a concern for preventing climate change, but rather reflect a growing interest among governments in securing future energy supplies, as South Africa demonstrates clearly.

Relative to the commitment to stabilize GHG emissions, the overall score across the Outreach Five countries was 0.20. Only China received a score of full compliance, attributable to setting a domestic emission-intensity target for 2010, and outlining various sector-level programmes for achieving it, including the stimulation of inward investment for CDM projects. The prevalence of partial compliance scores relative to the other Outreach Five countries may suggest that governments are holding off on announcing long-term policy goals and strategies until a post-2012 framework has been signed.

Finally, all Outreach Five countries were found to be in partial compliance with the commitment to promote less emission-intensive energy consumption. While short of fully complying, this suggests governments presiding over large populations without adequate access to energy are announcing energy-efficiency programs as a means to broaden coverage and find feasible solutions to counter high energy prices. In fact, as increasing energy productivity is the cheapest source of additional energy, especially amidst rising oil prices, governments are paying more attention to existing domestic patterns of energy use.

Analysis of Compliance Scores

As the G8 countries agree on different climate-related policy commitments at successive summits, it is difficult and somewhat distorting to do time-series analysis of compliance scores. Nevertheless, it is still justifiable to consider general patterns of compliance across time. In this regard, it is noticeable that

the compliance scores for 2007/08 summarized in this report are noticeably higher than those found in 2006/07. Moreover, the compliance scores in this report are also higher than those made public in the Interim Compliance Report released in February 2008, which assessed whether the G8 and Outreach Five countries had complied with their climate-related commitment, at the half-way point of the 2007-08 compliance cycle.[10] In terms of the G8 and the EU, the interim report found that the average compliance score with the five selected Heiligendamm climate change commitments was 0.20 on a scale of -1 to +1. As for the Outreach Five countries, the analysis assessed their final average compliance score with the three selected Heiligendamm climate change commitments to be the same, 0.20 on a scale of -1 to +1. Overall, both groups scored higher in this compliance cycle than the previous one. This pattern of results continued through to the final compliance assessment, released in this report.

Two factors may account for relatively higher compliance scores in 2007/08 compared to 2006/07. First, Germany had made climate change an important item prior to and during the G8 Heiligendamm Summit, thereby raising expectations that the negotiations would produce an ambitious declaration on climate change, and among participating governments, renewed political will to translate commitments into concrete policy actions. In contrast, the Russian Federation, the host of the G8 St. Petersburg Summit in 2006, sought to integrate negotiations over climate change within broader political discussions of energy security and development. As a result, the climate agenda was less pronounced, and governments were less compelled to introduce ground-breaking and far-reaching policy initiatives.

Secondly, this compliance cycle featured the United Nations Climate Change Conference in Bali, 3-14 December 2007, which produced the "Bali Road Map", a document that defines a negotiating process and a number of policy initiatives that provide a basis for a post-2012 climate regime. In response to this historic conference and the unprecedented media attention toward climate change, many governments planned to propose or introduce new climate policy initiatives just prior to or after the conference. As such, the fact that this conference took place in this compliance cycle may have augmented compliance scores. The heightened scrutiny of government climate policies generated by the conference may have created an additional incentive for countries to follow-up on their G8 commitments with new policy initiatives, thereby explaining higher levels of compliance compared to 2006/07. Yet, the prevalence of partial compliance scores may be explained by the fact conferences of this kind induce governments to make lofty and far-reaching policy statements that meet public expectations without implementing these into concrete policy actions.

Third, as a compliance score is both a function of policy actions and the commitments against which compliance is measured, higher average

[10] Wright et.al eds. (2008), The G8 and Climate Change since Heiligendamm: Interim Compliance Report for the G8 and Outreach Five Countries, G8 Resaearch Group-LSE/Oxford. Date of Access: 3 July 2008. http://www.g8.utoronto.ca/oxford/g8rg-ox-interim-2007.pdf

compliance scores compared to previous years may result if commitments are weaker and vaguer. In other words, even if government behaviour remains stable over compliance cycles, annual compliance rates may fluctuate if the nature of climate commitments across annual G8 Summits differs markedly. Yet, there is little evidence that the climate change commitments around which a consensus emerged at the G8 Heiligendamm Summit were any weaker than those listed in the G8 St. Petersburg Summit declaration. Instead, the analysis finds some support for the argument that both G8 and Outreach Five countries are in fact devoting more time and political will to the climate change issue, by introducing national climate plans, expanding supportive regulations for renewables, and setting long-term emissions reduction targets. In most cases, the reason that 'partial', as opposed to 'full', compliance scores are particularly prevalent is that the policy actions are often deemed to either be sufficiently ambitious or specific, or that past policies have not delivered expected results.

And finally, the current rise in energy prices has triggered a growing awareness among government in the energy security dividend associated with climate change interventions. In this perspective, the promotion of a domestic renewable energy sector does not only reduce domestic GHG emissions, but it also provides for an alternative supply of energy that can replace imports from less reliable sources. Thus, rising compliance scores may reflect a growing interest in energy security among governments, rather than simply a growing commitment to help solve the climate change problem. This line of reasoning is becoming increasingly significant in the United States, and other countries that predominately rely on imported energy. In the long-run, a marriage of the climate change and energy security agenda may result in a broadening of political support for nuclear energy, as it provides a clean energy source that can deliver volumes comparable to coal-fired power plants. While the handling of radioactive waste will remain a risk that continues to drive opposition to nuclear energy, governments in several countries – including Italy and Germany – have announced their support.

Commitments

The G8 and the EU

The commitments below are the most important climate-related commitments made by the G8 and the EU at the G8 Summit in Heiligendamm, 7-9 June 2007. They are taken from the main summit document, "Growth and Responsibility in the World Economy".[11]

1A. Commitment to Stabilize GHG Concentrations (§49)

"We are therefore committed to taking strong and early action to tackle climate change in order to stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system."

1B. Commitment to Promote Less Emission-Intensive Energy Production (§54)

"We have urgently to develop, deploy and foster the use of sustainable, less carbon intensive, clean energy and climate-friendly technologies in all areas of energy production…."

1C. Commitment to Promote Less Emission-Intensive Energy Consumption (§65)

"We commit ourselves to a model of efficient energy systems and…will promote the appropriate policy approaches and instruments, including inter alia economic incentives and sound fiscal policies, minimum standards for energy efficiency, sound and ambitious energy performance labelling, information campaigns aimed at consumers and industry that enhance national awareness, sector-based voluntary commitments agreed with industry, investment in research and development and guidelines for public procurement."

1D. Commitment to Support Climate Adaptation in Developing Countries (§58)

"We emphasise our willingness to continue and enhance cooperation with and support for developing countries in adapting to climate change and enhancing their resilience to climate variability, in particular those most vulnerable to the negative impacts of climate change."

1E. Commitment to Reduce GHG Emissions by Curbing Deforestation (§56)

"We are determined to assist in reducing emissions from deforestation, especially in developing countries, by …continu[ing] to support existing processes to combat illegal logging and … remain[ing] engaged in supporting developing countries to achieve their self commitments for halting forest loss and to implement sustainable forest management."

[11] Growth and Responsibility the World Economy, Summit Declaration, G8 Summit 1007 in Heiligendamm, 7 June 2008. http://www.g-8.de/Content/EN/Artikel/__g8-summit/anlagen/2007-06-07-gipfeldokument-wirtschaft-eng,property=publicationFile.pdf.

The Outreach Five Countries

The commitments below are the most important climate-related commitments made by the Outreach Five countries at the G8 Summit in Heiligendamm, 7-9 June 2007. They are taken from the "Joint Statement by the German G8 Presidency and Brazil, China, India, Mexico and South Africa."[12]

2A. Commitment to Stabilize GHG Concentrations

"We reaffirm our commitment to the United Nations Framework Convention on Climate Change (UNFCCC) and to its objective through both mitigation and adaptation in accordance with our common but differentiated responsibilities and respective capabilities."

2B. Commitment to Promote Less Emission-Intensive Energy Production

"We confirm our commitment to promote energy efficiency, through cost-effective solutions, to advance the effective use of fossil fuels, such as the clean coal technology, and to increase the use of cleaner and renewable energy sources, such as biofuels and biomass, as an important step towards secure, stable and competitive energy supplies for achieving sustainable development."

2C. Commitment to Promote Less Emission-Intensive Energy Consumption

"We recognise the need for closer, more practical and result-oriented regional and international cooperation in the energy sector, especially in ensuring secure and affordable supplies of energy as well as in improving energy efficiency and the access to advanced and affordable energy technologies."

[12] Joint Statement by the German G8 Presidency and the Heads of State and/or Government of Brazil, China, India, Mexico and South Africa on the occasion of the G8 Summit in Heiligendamm, Germany, 8 June 2007. http://www.g-8.de/nsc_true/Content/EN/Artikel/__g8-summit/anlagen/05-erklaerung-en,templateId=raw,property=publicationFile.pdf/05-erklaerung-en.

Methodology

Policy commitments made by governments in multilateral negotiations do not commonly take the form of precise statements that clearly delineate between appropriate and inappropriate policy actions. This makes the task of assessing compliance particularly difficult. As governments bring different and often opposing policy positions to the table, declarations commonly take the form of consensus statements that reflect a compromise between the official policy positions and goals of the different parties. The outcome is often broad-sweeping statements that lend support to a wide range of policies and actions, particularly in policy areas where polarization between policy positions is strong. In such cases, we would expect parties to only endorse imprecise, vague commitments, as they are unwilling to accept language that seems to favor the other side.[13]

It cannot be assumed that a country's compliant behaviour is a direct consequence of its government's participation at the previous G8 summit. In many cases, commitments negotiated in a G8 Communiqué may coincide with, or echo, identical or similar pledges made in other international forums, international organizations, or national policy statements—just as they may precede such developments. However, establishing whether a direct causal link exists between a particular summit commitment and a subsequent policy action in a G8 or O5 country is beyond the scope of this analysis. In terms of holding countries accountable for the commitments made at the summit, and providing an overview of policy actions across different climate-related policy areas, providing this causal link is not relevant.

The Commitments: The Heiligendamm Summit produced numerous documents containing policy commitments and broader aspirational goals across many themes, including foreign investment, energy security, and international trade.[14] In line with the core objective of the G8 Research Group – LSE / Oxford, only the most important climate-related commitments were selected for this report.

The G8 countries will be assessed against five commitments selected from the main summit document, "Growth and Responsibility in the World Economy." This document was produced in consultations between G8 countries prior to and during the summit. The Outreach Five countries – India, China, Brazil, South Africa and Mexico – will be evaluated against three commitments contained in the "Joint Statement" which they endorsed alongside the German Presidency.

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[13] As an example, the question of whether industrialized countries should be subjected to binding national GHG emission reduction targets has been a divisive issue in climate negotiations, and the discussion of climate mitigation and adaptation within the G8 process is no different in that regard.

[14] For an overview, see the G8 Information Centre: http://www.g8.utoronto.ca/summit/2007heiligendamm/index.html.

Both sets of countries will be assessed against the commitments to help stabilize global GHG concentrations, and to promote less emission-intensive energy production and consumption. These three policy commitments were included in both documents, and thus the report will offer a comparison of policy actions across governments within the same policy areas. In addition, the G8 countries will be assessed against their commitment to support climate adaptation in developing countries, and their commitment to help curb deforestation as a means to protect carbon sinks.

Selection of Commitments: The eight commitments were not chosen at random, but through a systematic and careful selection process designed to produce a representative and multi-dimensional assessment of policy development in the climate change area. Each commitment, if taken in isolation, could at best provide only a partial appraisal of whether a single country is complying with its overall climate commitments made at the summit. But taken together the commitments give a comprehensive picture of individual governments' performance in addressing anthropocentric climate change; covering alternative and renewable energy production (supply-side policies); sustainable energy use (demand-side policies), such as building codes and product standards; and for the G8 countries, efforts to transfer finance and technology to developing countries in support of climate adaptation, and forest protection.

Timeline: To report compliance, the G8 Research Group operates in compliance cycles.

- For the **interim report**, any policy actions and initiatives that are included in the assessment of compliance should be announced or enacted between the Heiligendamm Summit (7-9 June 2007) and 4 January 2008.

- For this **final report**, any policy actions and initiatives that are included in the assessment of compliance should be announced or enacted between the Heiligendamm Summit (7-9 June 2007) and 6 June 2007.

However, the degree to which any such policies need to be operationalized (i.e. not merely proposed, but also implemented) depends on the type of policy: For example, a long-term strategy need not be entirely fulfilled in order to count as compliance.

Scoring Methodology: Individual compliance is graded on a three-point *scale* (-1, 0, +1), in which –1 denotes no compliance, +1 denotes full compliance, and 0 denotes some degree of compliance. Thus, a country assigned either 0 or +1 has at least some degree of compliance with the relevant summit commitments. In general terms, no compliance (-1) may be assigned if policy actions are limited to official reaffirmations or statements of intent or support, whereas strong compliance would require budget allocations and new programs of implementation. The criteria used to score each individual commitment are described in detail in the subsequent sections. All judgments should be based on exhaustive empirical data about

government policy (footnoted throughout the report), which are cross-referenced with independent commentary to establish their expected and/or actual policy impact. The resultant scores therefore reflect both the governments' promises *and* the material results – where possible - of their policy actions.

Assigning Scores: Most commitments do not specify for countries which particular policies and initiatives they have to introduce and implement in order to secure full compliance. Therefore, given the lack of clarity and specificity that characterize multilateral consensus declarations, including the G8 Summit documents, assessing compliance and assigning compliance scores require analysts to use their professional judgment in cases where objective evaluation criteria cannot be used. Yet, notwithstanding this invariable element of subjectivity, a set of interpretative guidelines have been developed to maximize coherence in assessment methodology by standardizing the evaluation of specific commitments across countries to the extent possible.[15] Furthermore, the nature and implementation of particular policy actions often reflect a country's distinct constitutional, legal, and institutional processes. Given the diversity of government systems, we should expect government actions, policy initiatives, and timeframes for meeting the Summit commitments to differ considerably.

Furthermore, contextual factors, such as elections, commodity prices or macroeconomic developments will impact the nature and pace of policy development. As such, there is no standardized cross-national evaluative criterion that can be used to rate compliance since countries are expected to take different steps to comply with the same commitment, particularly those focused on domestic policy actions. Therefore, analysts will bring their professional judgement to bear in order to assess whether a country has achieved compliance with a particular commitment. So even though the manner in which Summit commitments are reached are context-dependent, and will vary considerably, the extent to which each country has achieved the collectively-endorsed goals contained in each Summit commitment can be established across countries.

Comparing Scores: In terms of compliance with Summit commitments, each country departs from a different baseline. Therefore, all scores are judged relative to each country's current policy position. By implication, 'significant' progress for one country would not necessary count as significant for another, given their different levels of emissions or support for renewable energy. In fact, the Summit commitments themselves implicitly endorse this interpretation, as they commonly focus on process rather than specific targets. Moreover, the time between one Summit and another may be insufficient to comply with certain (longer-term) commitments, which analysts should take into consideration. Lastly, dramatically altered international conditions or newly-available knowledge about resolving a particular problem may make compliance with a Summit commitment unwise or unfeasible. The new

[15] For further information on the Interpretative Guidelines, please visit the G8 Research Group – LSE / Oxford site: http://www.g8.utoronto.ca/oxford/g8rg-oxford.html, where the Interpretative Guidelines for the 2007/08 report will be published shortly.

insights into the potentially negative impacts of first generation biofuels present such a case. Where applicable, this would be noted in the analysis.

Effect of compliance: Depending on the wording and the intent of the individual commitment negotiated at the Summit, it is possible that even full compliance may fail to address the deeper structural problems that the commitment seeks to solve. Indeed, given the aforementioned limitations with consensus declarations, it is entirely possible that the commitments themselves are too weak and narrow to achieve their stated aspirational goals. For example, a commitment that proposes to achieve deep cuts in GHG emissions by relying solely on voluntary regulation of the private sector may not achieve its objective. But while critiquing the commitments themselves, and identifying which policy commitments the G8 should make in order to reach their aspirational goals is valuable, it is beyond the scope of this analysis. Related, whereas one country's compliance with a commitment would represent progress towards a collectively-held policy goal, it may not materially affect the problem unless other countries comply as well. Indeed, some problems -and anthropocentric climate change may be the best example- require concerted collective action to be solved, and it is precisely this feature which induces countries to address them multilaterally. But since the implementation of Summit commitments is done nationally by the respective governments, compliance should be assessed against their own specific commitments, rather than whether their efforts contribute to solving the broader problem.

Glossary

ACP Africa, Caribbean, Pacific
ADEME Environment and Energy Management Agency, France
ADF Agence Française du Développement
AFREC African Energy Convention
AFP Agence France-Presse
ALA Asia, Latin-America
ANC African National Congress
APEC Asia Pacific Economic Co-operation
APPCDC Asia-Pacific Partnership on Clean Development and Climate
ASEAN Association of Southeast Asian Nations
BBC British Broadcasting Company
BEE Bureau of Energy Efficiency
BERR Secretary of State for Business, Enterprise, and Regulatory Reform
BNDES Banco Nacional de Desenvolvimento Econômico e Social / Brazilian National Development Bank
CAFE Corporate Average Fuel Economy
CCPF Climate Change Partnership Framework
CCS Carbon Capture and Storage
CCTP Climate Change Technology Programme
CCTV Television network of the People's Republic of China
CDM Clean Development Mechanism
CEC North American Free Trade Agreement's Commission for Environmental Co-Operation
CEF Central Energy Fund
CER certified emission reductions
CFL compact florescent light bulbs
CHOGM Commonwealth Heads of Government Meeting
CIDA Canadian International Development Agency
CIM Comitê Interministerial sobre Mudança do Clima
CIPE Inter-ministerial Committee for Economic Planning
CSLF Carbon Sequestration Leadership Forum
CMP Meeting of the Parties to the Kyoto Protocol
CO_2 Carbon Dioxide
COP Conference of the Parties to the UNFCCC
COP-13 Thirteenth Conference of the Parties to the United Nations Framework Convention on Climate Change
COP Conference of the Parties to the UNFCCC
MOP 3 Meeting of the Parties to the Kyoto Protocol
CTE Technical Committee on Emissions
CTI Coral Triangle Initiative
CSA Canadian Space Agency
DEAT South African Department of Environmental Affairs and Tourism
DEFRA Department of Environment, Food, and Rural Affairs
DFID Department for International Development
DME Department of Minerals and Energy
DMIC Delhi-Mumbai Industrial Corridor
DOE Department of Energy
DPEF Economic and Financial Programme
EBRD European Bank for Reconstruction and Development
EFA European Free Alliance/Greens
EGSA environmental goods and services agreement
EIA Environmental Investigation Agency
EIB European Investment Bank
EPA Environmental Protection Agency
EPCA Energy Policy and Conservation Act
EPE Energy Policy for Europe
EREC European Renewable Energy Council
ETF Environmental Transformation Fund
ETI Energy Technologies Institute
ETP-ZEP European Technology Platform for Zero Emission Fossil Fuel Power Plants
EU European Union
EU ETS European Union Emissions Trading Scheme
FCPF Forest Carbon Partnership Facility
FFA Federal Forestry Agency
FFEM Fonds Français de l'Environnement Mondial
FICCI Federation of Indian Chambers of Commerce and Industry
FLEGT Forest Law Enforcement and Trade
FMFA French Ministry of Foreign Affairs
FAO Food and Agriculture Organization
FoE Friends of the Earth
FTC Federal Trade Commission
FY fiscal year
G7/8 Group of Seven / Eight Nations
GAW Global Atmosphere Watch
Gcal/h Gigacalorie per hour
GCCA Global Climate Change Alliance
GCMS Global Carbon Monitoring System
GDP Gross Domestic Product
GEF Global Environment Facility
GHG Greenhouse Gases
GW Giga watt
HOV High Occupancy Vehicle
HM Her Majesty's
IBSA India-Brazil-South Africa
IGCC Integrated Gasification Combined-Cycle
IEA International Energy Agency
IEPR Integrated Energy Policy Report
ITER The International Thermonuclear Experimental Reactor
ITTO International Tropical Timber Organization
IPCC Intergovernmental Panel on Climate Change
IPP independent power producers
JAXA Japan Aerospace Exploration Agency
JI Joint Implementation
JISC Joint Implementation Supervision Committee
JMA Japanese Meteorological Agency
JSE Johannesburg Securities Exchange
Kcal Kilo calorie
LCS Low Carbon Society 2050
LDCs Least Developed Countries
LNG liquefied natural gas
LSE London School of Economics
LTER The International Long Term Ecological Research Network (Italy)
LTPA Legal Timber Protection Act
LULUCF land-use, land-use change, and forest degradation
M2M Methane to Markets Partnership
M^2 square metre
MEDT Ministry of Economic Development and Trade
METI Ministry of Economy, Trade and Industry
MLIT Ministry of Land, Infrastructure, Transport and Tourism
MOFA Ministry of Foreign Affairs
MOST Ministry of Science and Technology
MOU Memorandum of Understanding
MNP Netherlands Environmental Assessment Agency
MW Megawatt
MWe Megawatts electrical
NAAMSA National Association of Automobile Manufacturers of South Africa
NIES National Institute for Environmental Studies
NDRC National Development and Reform Commission
NCCCC National Coordination Committee on Climate Change
NGO non-governmental organisation
NPR National Public Radio
NZEC Near Zero Emissions Coal
ODA Official Development Assistance
Ofgem Office of Gas and Electricity Markets
OHPGB Office of High-Performance Green Buildings

ONERC Observatoire National sur les Effets du Réchauffement Climatique
PEMEX Petróleos Mexicanos
PCRA Petroleum Conservation Research Association
PPM Parts Per Million
R&D Research and Development
RDA Royal Danish Embassy
RO Renewables Obligation
ROC Renewables Obligation Certificate
Rs. Rupee
SA South Africa
SABS South African Bureau of Standards
SACAN South African Climate Action Network
SANERI South African National Energy Research Institute
SAWS South African Weather Service
SBI State Bank of India
SCCF Special Climate Change Fund
SDTC Sustainable Development Technology Canada
SD-PAM Sustainable development policy and measures
SEMAR Secretariat of the Navy/Secretaría de Marina
SEMARNAT Department of Environment and Natural Resources
SERC State Electricity Regulatory Commission
SET plan Strategic Energy Technology plan
SGC Renewable Energy Subsidy Governance Committee
SIDS small island developing states
SMEs Small and Medium-Sized Enterprises
STDC Sustainable Development Technology Canada
tCO_2 Tonnes of Carbon Dioxide
TFCA Tropical Forest Conservation Act
TGV Train à Grande Vitesse
UES-Russia United Energy Systems – Russia
UMP Union pour un Mouvement Populaire
UN United Nations
UNCCD Convention to combat to combat the desertification in Africa
UNDP United Nations Development Programme
UNFCC United Nations Framework Convention on Climate Change
UNFF7 United Nations Forum on Forests 7
US(A) United States (of America)
USAID United States Agency for International Development
USDA United States Department of Agriculture
VAT Value-added Tax
VPA Voluntary Partnership Agreements
WDCGC World Date Centre for Greenhouse Gases
WMO World Meteorological Organization
WRI World Resources Institute
WWF World Wildlife Fund for Nature

Introduction

The global recession resulting from the oil crisis of 1973 prompted the leaders of the major industrialised countries to meet on an annual basis to tackle pressing economic and political challenges as members of the G7/G8. Since the first meeting of the then six largest industrialised nations in 1975 in Rambouillet (France), issues related to energy and energy security have been a critical element of negotiations. [16] In 1979, at the G7 Summit in Tokyo, the seven leading economies expressed the urgency to '…expand alternative sources of energy, especially those which help to prevent further pollution, particularly increases of carbon dioxide and sulfur oxides in the atmosphere.'[17] Over the years, the attention paid to environmental and climate change issues at G8 Summits has fluctuated, experienced an unprecedented peak at the past three summits (Gleneagles (2005), St Petersburg (2006), Heiligendamm (2007)), and has been placed at the top of the agenda by this year's hosts, Japan.[18]

More broadly, climate change as policy problem that requires a multilateral response has been frequently addressed in summit declarations since 1975.[19] At the G8 Gleneagles Summit in 2005, the UK government announced the initiation of the G8 + 5 Climate Change Dialogue, a forum that brings together legislators from the G8 and Outreach Five countries (Brazil, China, India, Mexico, and South Africa) with respected international institutions to discuss and agree policy and actions that are both politically and practically robust. While not formally associated with the inter-ministerial meetings between G8 countries, this policy process nevertheless identifies and helps resolve conflicts over climate policy that exists within the G8. At the G8 Heiligendamm Summit in June 2007, climate change again featured prominently, given the hosts desire to produce momentum ahead of the United Nations Conference on Climate Change in Bali later in the year.[20] German Chancellor Angela Merkel helped forge a new consensus among G8 leaders 'to take strong and early action to tackle climate change.'[21] Moreover,

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[16] Die Energiesackgasse, Greenpeace Gruppe Berlin, (Berlin), 17 October 2006. Date of Access: 30 January 2008. http://www.greenpeace-berlin.de/themen/presse/newsarchiv/newsarchiv/artikel/die-g8-energiesackgasse/index.html

[17] Kirton, J. and Guebert, J., Compliance with Climate Change Commitments: The G8 Record, 1975–2007. Toronto: G8 Research Group, 13 December 2007, (Toronto). 22 February 2007. http://www.g8.utoronto.ca/evaluations/compliance-climate.html

[18] Kirton, J. and Guebert, J., Compliance with Climate Change Commitments: The G8 Record, 1975–2007. Toronto: G8 Research Group, 13 December 2007, (Toronto). Date of Access: 22 February 2007. http://www.g8.utoronto.ca/evaluations/compliance-climate.html

[19] G8 Issues Catalogue – Climate Change, compiled by John Kirton, Laura Sunderland, Jenilee Guebert and Sarah Cale (G8 Research Group, Toronto). Last updated 5 June 2008. Date of Access : 2 July 2008. http://www.g8.utoronto.ca/references/climatechange.pdf

[20] Climate Change Tops Agenda at Opening of G-8, NPR, 6 June 2007. Date of Access: 10 February 2008. http://www.npr.org/templates/story/story.php?storyId=10758128

[21] G8 Summit Declaration: Growth and Responsibility in the World Economy, (Heiligendamm), 7 June 2007. Date of Access: 10 February 2008. http://www.g-8.de/nn_220074/Content/EN/Artikel/__g8-summit/anlagen/2007-06-07-gipfeldokument-wirtschaft-eng.html

participating countries agreed to "consider seriously (…) at least a halving of global emissions by 2050",[22] which, according to Yvo de Boer, Executive Secretary of the UNFCCC, helped "reenergise" the UNFCCC process.[23] The G8 stated that a global emission reduction goal must be agreed, involving "all major emitters".[24] Importantly, this sent a clear signal to Bali delegates to immediately launch talks on a post-Kyoto climate change framework.[25] Thus, as a UNFCCC press release claims, "the G8 Summit in Heiligendamm has paved the way for negotiations in Bali and given climate talks under the auspices of the UN a considerable boost."[26]

On 3-14 December 2007, at the United Nations Conference on Climate Change in Bali, delegates negotiated and adopted the Bali Road Map, which charts the course of a new process to negotiate a successor to the Kyoto Protocol, once it expires in 2012. This process is expected to be concluded by 2009, at the COP-15 in Copenhagen, Denmark.[27] Apart from the post-2012 framework, the COP 13 reached important agreements on deforestation, adaptation, and technology transfer, which are discussed throughout this report.[28] Yet, major differences between negotiating parties on the future emissions reduction targets persisted, as the EU, Britain, and Germany were unable to persuade the United States, Russia, and Japan, among others, to commit to a 25-40 % reduction in emissions by 2020 relative to 1990 levels.

Also at the G8 Heiligendamm Summit, the US, as the only G8 member not to have ratified the Kyoto Protocol, pledged to host a meeting of 'major energy consuming and greenhouse gas emitting countries,' intended to 'support [and] report back to the UNFCCC process'.[29] G8 members pledged their support on the condition that the policy process served to reinforce, rather than

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[22] G8 Summit Declaration: Growth and Responsibility in the World Economy, (Heiligendamm), 7 June 2007. Date of Access: 10 February 2008. http://www.g-8.de/nn_220074/Content/EN/Artikel/__g8-summit/anlagen/2007-06-07-gipfeldokument-wirtschaft-eng.html

[23] UNFCCC Executive Secretary: G8 document reenergises multilateral climate change process under the United Nations, (Bonn), 7 June 2007. Date of Access: 10 February 2007. http://unfccc.int/files/press/news_room/press_releases_and_advisories/application/pdf/20070607_g8_press_release_english.pdf

[24] G8 Summit Declaration: Growth and Responsibility in the World Economy, (Heiligendamm), 7 June 2007. Date of Access: 10 February 2008. http://www.g-8.de/nn_220074/Content/EN/Artikel/__g8-summit/anlagen/2007-06-07-gipfeldokument-wirtschaft-eng.html

[25] International Action – The G8 and the Gleneagles Dialogue, DEFRA, (London), 7 November 2007. Date of Access: 10 February 2008. http://www.defra.gov.uk/Environment/climatechange/internat/g8/index.htm

[26] UNFCCC Executive Secretary: G8 document reenergises multilateral climate change process under the United Nations, (Bonn), 7 June 2007. Date of Access: 10 February 2007. http://unfccc.int/files/press/news_room/press_releases_and_advisories/application/pdf/20070607_g8_press_release_english.pdf

[27] COP15 Copenhagen 2009, 8 February 2008. Date of Access: 10 February 2008. http://www.cop15.dk/en/

[28] At a glance: Bali climate deal, BBC, 15 December 2007. Date of Access: 10 February 2008. http://news.bbc.co.uk/1/hi/sci/tech/7146132.stm

[29] G8 Summit Declaration: Growth and Responsibility in the World Economy, (Heiligendamm), 7 June 2007. Date of Access: 10 February 2008. http://www.g-8.de/nn_220074/Content/EN/Artikel/__g8-summit/anlagen/2007-06-07-gipfeldokument-wirtschaft-eng.html

undermine, the principles and outcomes of the UNFCCC process. Despite low expectations, the second of these talks was successfully held in Hawaii, in late January 2008,[30] and just recently, the U.S signaled its willingness to accept binding international obligations to cut its domestic GHG emissions.

Looking ahead, climate change is once again expected to be near the top of the agenda at this year's G8 Summit in Hokkaido, Japan.[31] A key priority for the hosts will be to formulate a proposal endorsed by the G8 for the post-2012 framework.[32] On 27 May 2008, G8 environment ministers issued a joint statement which endorsed a target to cut GHG emissions by 50 % by 2050, and cited the need for global emissions to peak within the next 10 to 20 years. However, the statement fell short of identifying the specific emissions reductions developed countries should make by 2020, and how they would assist developing countries to both mitigate their emissions and adapt to climate change. Therefore, it remains unclear whether the G8 Hokaido Toyako Summit will meet the expectations of Yvo de Boer, Executive Secretary of the UNFCCC, by giving "a clearer understanding of what G8 countries are willing and able to do to help developing countries act on climate change."[33]

Yet, the G8 process has over time become an important negotiating forum for the largest and fastest-growing economies to discuss issues related to climate, energy and development. Furthermore, given the growth of China and India as major emitters and the expectation that non-Annex I countries may be included in a future climate treaty, the outcomes of the G8+5 Climate Dialogue may set the agenda for future climate negotiations between and among industrial countries and large, developing countries. Indeed, on 29 June 2008, on the eve of the G8 Hokkaido Toyako Summit, the legislators announced an agreement on a post-2012 framework, but similar to the statement released by G8 environment ministers a month before, it lacks timetabled targets for emissions reductions.

Notwithstanding these shortcomings, the growing importance of the G8 process in global climate politics, and the recent inclusion of large developing countries in the negotiations, is precisely what provides a strong rationale for producing an in-depth report on whether participating states abide by their climate-related commitments.

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[30] Bush's climate talks 'engaging', BBC, 1 February 2007. Date of Access: 10 February 2007. http://news.bbc.co.uk/1/hi/sci/tech/7223222.stm

[31] 'Japan eyes 4 key issues for G8 summit, sherpas to begin talks Jan.,' Kyodo News, 5 December 2007. Date of Access: 10 February 2007. http://www.g7.utoronto.ca/evaluations/2008hokkaido/2008plan/2008plan.html#climate

[32] 'Japan eyes 4 key issues for G8 summit, sherpas to begin talks Jan.,' Kyodo News, 5 December 2007. Date of Access: 10 February 2007. http://www.g7.utoronto.ca/evaluations/2008hokkaido/2008plan/2008plan.html#climate

[33] 'Japan in key position to tackle climate change: U.N. official,' Kyodo News, 23 August 2007. Date of Access: 10 February 2007. http://www.g7.utoronto.ca/evaluations/2008hokkaido/2008plan/2008plan.html#climate

The G8 and the EU

G8 Leaders at Heilgendamm, 9 June 2007 (Source: Dagbladet)

From left to right:
Prime Minister Tony Blair, Prime Minister Romano Prodi, President Vladimir Putin, President Nicolas Sarkozy, Chancellor Angela Merkel, President George Bush, Prime Minister Stephen Harper, Prime Minister Shinzo Abe, and EU President Jose Manuel Barroso.

Canada

Background

Hailed as a success by the Canadian government, the Heiligendamm Summit concluded that the G8 member countries would "consider seriously the decision made by the European Union, Canada and Japan which include at least a halving of global emissions by 2050."[34] Canadian Prime Minister Stephen Harper was particularly pleased with the G8's expression of intent to continue dialogue with the Outreach 5 nations, claiming that a structured dialogue between the G8 and these key emerging economies was required to address a global challenge.[35]

In December 2007 at the United Nations Climate Change Conference in Bali, the Canadian government maintained the position that any agreement that represents "an effective global approach to greenhouse gas emissions must have binding targets that apply to all major emitters."[36] Indeed, John Baird, the Minister of the Environment, was determined to reject any future climate change treaty unless it included countries such as the United States, China, and India.[37] This stance led many critics to argue that Canada was "poisoning the talks in Bali."[38] The UNDP criticized Canada for its failure to address climate change, concluding that the nation is "all talk" and "no action."[39] According to one media source, many critics "wondered how a rich country like Canada could abandon its own targets under Kyoto, then demand that developing countries like China and India adopt specific obligations."[40] Canada seems to be maintaining its position for the upcoming G8 Summit. At the end of May 2008, Canadian Prime Minister Stephen Harper met with European leaders with the aim of swaying European leaders towards Canada's climate agenda, drawing criticism from Canadian environmentalists.[41]

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[34] G8 (2007), 'Growth and Responsibility in the World Economy', G8 Heiligendamm Summit, 7 June 2007. Date of Access: 26 December 2007. http://www.g8.utoronto.ca/summit/2007heiligendamm/index.html.
[35] The 2007 G8 Summit, Canada's G8 Website, (Heiligendamm), 8 June 2007. Date of Access: 3 January 2008. http://www.g8.gc.ca/G8_Summit-en.asp.
[36] Speech from the Throne: A Healthy Environment for Canadians, Office of the Prime Minister, (Ottawa), 16 October 2007. Date of Access: 26 December 2007. http://www.sft-ddt.gc.ca/eng/media.asp?id=1372.
[37] Canada Calls New UN Agreement an Important First Step, Government of Canada, News Release, (Bali), 15 December 2007. Date of Access: 26 December 2007. http://www.ecoaction.gc.ca/news-nouvelles/20071215-eng.cfm.
[38] Chorus of Condemnation Hits Canada in Bali, TheRecord.com, (Bali), 11 December 2007. Date of Access: 2 January 2008. http://news.therecord.com/article/281054.
[39] Canada Flounders on Issue of Climate Change, CBC News, 4 December 2007. Date of Access: 3 January 2008. http://www.cbc.ca/news/viewpoint/vp_burman/2007/12/canada_flounders_on_issue_of_c.html.
[40] Chorus of Condemnation Hits Canada in Bali, TheRecord.com, (Bali), 11 December 2007. Date of Access: 2 January 2008. http://news.therecord.com/article/281054.
[41] Harper defends Canada's environmental record, The Star, 29 May 2008. Date of Access: 28 June 2008. http://www.thestar.com/News/Canada/article/432781.

In assessing Canada's compliance to its specific commitments as set out at Heiligendamm, Canada receives a low score in most categories, and shows moderate improvements in its commitment to reduce energy-intensive consumption. At home, the Canadian government aims to implement a national strategy to reduce Canada's total GHG emissions by 60 to 70 % by 2050, with an intermediate target of 20 % GHG emission reduction by 2020.[42] However, there is only modest change in Canada's actions to fulfill its commitments since the publication of the interim report. While there is evidence that Canada has devoted attention to its commitments, this has largely been in the form of official reaffirmations of existing programs, failing to take significant steps to implement further domestic initiatives, and even hindering progress internationally.

Team Leader and Analyst: Hilary Millar

Canada	**Score**
1A. Stabilise GHG Concentrations	**0**

Traditionally, Canada has modeled itself as a proponent of multilateral co-operation and environmental stewardship. In 1997, Canada ratified the legally binding Kyoto Protocol to address climate change. Canada renewed its Kyoto obligations at successive G8 Summits: in 2005 at Gleneagles,[43] and in 2006 at St. Petersburg[44]. At the 2007 Heiligendamm Summit, Canada further extended its commitment to fight climate change pledging to halve global greenhouse gas (GHG) emissions by 2050, and take "leadership in tackling climate change".[45]

However, despite recent multilateral agreements, Canada has incrementally shifted its position against internationally binding hard targets relating to GHG emissions reductions. In October 2006, Canada publicly renounced its legally binding commitments to the Kyoto Protocol, establishing itself as the only pariah signatory choosing to opt out.[46] Furthermore, in August 2007 Canada participated in the Vienna Climate Change Talks sponsored by the UN Framework Convention on Climate Change. Media reports suggested that Canada, along with Japan, New Zealand, Switzerland, and Russia, deemed 4°C as an acceptable level of temperature rise, who were consequently blamed

[42] Speech from the Throne: A Healthy Environment for Canadians, Office of the Prime Minister, (Ottawa), 16 October 2007. Date of Access: 26 December 2007. http://www.sft-ddt.gc.ca/eng/media.asp?id=1372
[43] Chair's Summary, Gleneagles G8 Summit, (Gleneagles), 8 July 2005. Date of Access: 2 January 2008.http://www.g7.utoronto.ca/summit/2005gleneagles/summary.html.
[44] Chair's Summary, St Petersburg G8 Summit, (St. Petersburg), 17 July 2006. Date of Access: 2 January 2008.http://www.g7.utoronto.ca/summit/2006stpetersburg/summary.html.
[45] Chair's Summary, G8 Research Group, (Toronto), 8 June 2007. Date of Access: 2 January 2008.
http://www.g7.utoronto.ca/summit/2007heiligendamm/g8-2007-summary.html.
[46] UN Framework Convention on Climate Change and Kyoto Protocol to the Convention, Government of Canada, (Ottawa), 14 April 2006. Date of Access: 2 January 2008. https://www.ec.gc.ca/international/multilat/unfccc_e.htm.

for "standing in the way of a binding agreement by watering down calls to limit concentrations of greenhouse gases in the atmosphere" that scientists estimated would stabilize global temperatures, and prevent an increase of more than 2°C.[47] Canada now insists that large polluters such as the Unites States, India, and China must all face similar targets for greenhouse gas reductions.[48]

Despite Canada's growing resistance to internationally-imposed binding reduction targets in some multilateral negotiations, Canada has made recent strides to redress the issue of climate change within its own nationally-defined context. On 26 April 2007, Canada introduced a new plan to address climate change - "Turning the Corner". The plan relies on intensity-based targets, and aspires to reduce and stabilize national GHG emissions and air pollution by 20 % by 2020.[49] On 12 December 2007, Environment Minister John Baird announced that Canada plans to establish mandatory regulations across all industrial sectors to reduce "emissions by 20 % by 2020, and 60 to 70 % by 2050."[50] As of 31 May 2008, Minister Baird announced that targeted Canadian industrial sectors including major emitting players such as electricity, oil and gas, pulp and paper, and iron and steel, will be required to provide annual disclosures of their GHG emissions.[51] Minister Baird also stated that Canada is currently devising a national strategy that will impose mandatory standards aimed at reducing GHG emissions in wide-ranging transportation sectors, including automobile, rail, marine, and air, although with exception of automobiles, he has not yet provided a timeframe for which these would be implemented.[52] On 17 January 2008, Minister of Transport, Infrastructure and Communities Lawrence Cannon announced that federal regulations of fuel consumption of new cars and light trucks will come into regulatory force in 2011.[53]

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[47] Consensus on Climate Change, CanWest News Service, (Ottawa), 1 September 2007. Date of Access: 3 January 2008. http://www.canada.com/topics/news/story.html?id=8d9c90a4-6a87-4f10-a5e4-dfd7e1580292&k=14034.

[48] PM defends environmental plan during stop in London, Guelph Mercury, 20 May 2008. Date of Access: 28 June 2008.
http://news.guelphmercury.com/0530082359/utilities/todayPaper.

[49] Canada's New Government Announces Mandatory Industrial Targets to Tackle Climate Change and Reduce Air Pollution, Environment Canada, (Ottawa), 26 April 2007. Date of Access: 3 January 2008. http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=4F2292E9-3EFF-48D3-A7E4-CEFA05D70C21.

[50] Government of Canada Gets Tough on Climate Change, Environment Canada, (Ottawa), 12 December 2007. Date of Access: 3 January 2008.
http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=0F208D84-395E-4E78-8E6F-CCB906C30F5B.

[51] Government of Canada Gets Tough on Climate Change, Environment Canada, (Ottawa), 12 December 2007. Date of Access: 3 January 2008.
http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=0F208D84-395E-4E78-8E6F-CCB906C30F5B.

[52] Speech by the Honourable John Baird, Minister of the Environment at the Economic Club of Toronto, Environment Canada, (Ottawa), 5 December 2007. Date of Access: 3 January 2008. http://www.ec.gc.ca/default.asp?lang=En&n=6F2DE1CA-1&news=B593A1B8-57D2-4080
85C8-542C6017EA0E.

[53] Canada's First Motor Vehicle Fuel Consumption Regulations, Transport Canada, (Ottawa), 17 January 2008. Date of Access: 1 May 2008.
http://www.tc.gc.ca/mediaroom/releases/nat/2008/08-h006e.htm.

On 10 March 2008, the government also introduced additional measures in its Turning the Corner plan specifically addressing two of Canada's largest emitting sectors - oil sands production and electricity. Commencing in 2012, the government intends to permanently ban the construction of dirty coal plants. Moreover, a new measure that will come into force in 2012 will require oil sands operations to implement carbon capture and storage technology.[54] The government has allocated CAD240 million for the development of one of the world's first and largest commercial-scale carbon capture and storage demonstration projects to assist in the transition of these sectors.[55]

Although Canada has made some significant progress in addressing climate change issues, and is in the process of implementing measures to reduce GHG concentrations, Canadian GHG emissions continue to rise, currently standing at over 35 % above 1990 levels.[56] In addition, according to the 2008 Climate Change Performance Index (CCPI) which indexes the climate protection performances of the 56 largest emitter countries that produce 90 % of global GHG emissions, Canada's dismal ranking (53 out of 56 countries) demonstrates its failure to promote effective policies, and achieve measurable GHG reductions in real-time in comparison with other large emitter countries.[57] Thus, in light of Canada's poor overall performance in taking significant steps to curb GHG emissions and leadership on the issue of climate change, Canada warrants a score of 0, indicating only partial compliance with its Heiligendamm commitment to stabilize GHG concentrations.

Analyst: James Meers

Canada	**Score**
1B. Promote Less Emission-Intensive Energy Production	**0**

In spite of its intent to "put Canada at the forefront of clean technologies to reduce air pollution and greenhouse gas emissions",[58] the government has made little concrete progress to comply with its commitment to promote less

[54] Getting Tough on Industry's Emissions, Environment Canada, (Ottawa), March 2008. Date of Access: 29 April 2008. http://www.ec.gc.ca/doc/virage-corner/2008-03/brochure_eng.html.
[55] Government Delivers Details of Greenhouse Gas Regulatory Framework, Environment Canada, (Ottawa), 10 March 2008. Date of Access: 4 May 2008. http://ecoaction.gc.ca/news-nouvelles/20080310-eng.cfm.
[56] Baird warns Canadian firms of trading in emissions credits, The Globe and Mail, (Toronto), 22 March 2007. Date of Access: 3 January 2007. http://www.theglobeandmail.com/servlet/story/RTGAM.20070322.wbaird22/BNStory/National.
[57] The Climate Performance Index, Germanwatch, (Berlin), 2008. Date of Access: 3 January 2008. http://www.germanwatch.org/klima/ccpi2008.pdf.
[58] Speech from the Throne: A Healthy Environment for Canadians, Office of the Prime Minister, (Ottawa), 16 October 2007. Date of Access: 26 December 2007. http://www.sft-ddt.gc.ca/eng/media.asp?id=1372.

emission-intensive energy production by reducing the carbon intensity of traditional fossil-fuel based energy sources, and by supporting the expanded production of energy from renewable energy sources.

On 3 December 2007, while speaking at the fourth Annual Summit of the Canadian Renewable Fuels Association, Gerry Ritz, Minister of Agriculture and Agri-Food, officially announced details and eligibility requirements for the EcoENERGY for Biofuels initiative, which supports the production of renewable alternatives to gasoline and diesel, and encourages the development of a competitive domestic industry for renewable fuels.[59] EcoENERGY for Biofuels will invest up to CAD1.5 billion over 9 years in support of biofuels production in Canada. This programme administered by Natural Resource Canada runs from 1 April 2008 to 31 March 2017.[60] The announcement followed the launch, on 12 September 2007, of the NextGen Biofuels Fund™.[61] This new fund of CAD500 million provided by the Canadian government, is managed by Sustainable Development Technology Canada (SDTC), and supports the establishment of large demonstration-scale facilities for the production of next-generation renewable fuels.

On 12 December 2007, Canada took a step forward in its plan to enforce new regulations on industry, including the electricity, and oil and gas sectors, to reduce GHGs emissions.[62] Minister Baird announced at the United Nations Climate Change Conference in Bali that the government of Canada had formally advised industry of new requirements to submit air emissions data by 31 May 2008, thus moving forward with its Regulatory Framework for Air Emissions launched in April 2007.[63] The information that industry is being ordered to submit will be used to draft final regulations, which will be published later in 2008.

These initiatives notwithstanding, there has been less progress in strengthening the implementation of existing programmes. The EcoENERGY for Renewable Power programme is an important factor in growing the renewable energy sector in Canada, yet has not been significantly updated, nor

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[59] Government of Canada calls in industry to participate in new biofuels initiative, Government of Canada, News Release, 3 December 2007. Date of Access: 3 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20071203-eng.cfm. Also see: http://www.ecoaction.gc.ca/ecoenergy-ecoenergie/biofuelsincentive-incitatifsbiocarburants-eng.cfm.

[60] Natural Resources Canada Website, 2008. Date of Access: 4 January 2008. http://oee.nrcan.gc.ca/transportation/ecoenergy-biofuels/index.cfm?attr=16.

[61] $500M Fund Launched to Support Next-Generation Renewable Fuels, STDC, News Release, 12 September 2007. Date of Access: 23 December 2007. http://www.sdtc.ca/en/news/media_releases/media_12092007.htm.

[62] Government of Canada gets tough on climate change: orders industry to submit air emissions information, News release,Government of Canada,12 December 2007. Date of Access: 4 January 2008. http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=0F208D84-395E-4E78-8E6F-CCB906C30F5B.

63 Canada's new government announces mandatory industrial targets to tackle climate change and reduce air pollution, News Release, Government of Canada, (Ottawa), 26 April 2007. Date of Access: 3 January 2008. http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=4F2292E9-3EFF-48D3-A7E4-CEFA05D70C21.

improved, since its inception in January 2007.[64] In addition, according to the Pimbina Institute, the current programme's objective is quite modest given Canada's vast renewable energy potential and the need for a massive scale-up of efforts to reduce GHG emissions.[65] Furthermore, the projected rapid development of Alberta's oil sands over the next several years is set to add tens of megatonnes (Mt) of GHG emissions to Canada's current total. Despite this apparent conflict, the government has not yet responded to a call from the Federal Commissioner for Environment and Sustainable Development to "clearly state how it intends to reconcile the need to reduce greenhouse gas emissions against expected growth in the oil and gas sector."[66] In fact, in June 2008, Canada participated in a communiqué by G8 Energy ministers, which urged oil producing countries to increase oil supplies, casting doubt on the role of renewables in Canada's energy policy.[67]

In sum, the Canadian government has only partially complied with its commitment to promote less emission-intensive energy production. While several ongoing commitments highlight the government's interest in fostering the use of "sustainable, less carbon intensive, clean energy and climate-friendly technologies in all areas of energy production", there has been insufficient action since the Heiligendamm G8 Summit to justify a positive compliance score.

Analyst: Zinta Zommers and Dominique Henri

Addendum

- On 20 and 21 June 2008, the government of Canada has announced investments in various clean and renewable energy generation projects such as CAD47 million for low-impact hydro project in British Columbia,[68] and CAD18 million for the Quebec hydro project.[69]

[64] EcoENERGY for Renewable Power, Government of Canada, (Ottawa), 21 October 2007. Date of Access: 3 January 2008. http://www.ecoaction.gc.ca/ecoenergy-ecoenergie/power-electricite/index-eng.cfm.
[65] Whitmore, J. and M. Bramley, Evaluation of the Government of Canada's greenhouse gas reduction policies, prepared for the Climate Change Performance Index 2008, Pembina Institute, November 2007. Date of Access: 23 December 2007. http://pubs.pembina.org/reports/CCPI-2008.pdf.
[66] 2006 Report of the Commissioner of the Environment and Sustainable Development to the House of Commons. Chapter 3. Reducing greenhouse gases emitted during energy production and consumption, Minister of Public Works and Government Services Canada, (Ottawa), 2006. Date of Access: 23 December 2007. http://www.oag-bvg.gc.ca/internet/English/aud_ch_cesd_200609_3_e_14985.html.
[67] G8 ministers call for oil output rise, Financial Times, 8 June 2008. Date of Access: 28 June 2008. http://us.ft.com/ftgateway/superpage.ft?news_id=fto060820081357283779.
[68] Government of Canada announces $47 million for low impact hydro project in British Columbia, Natural Resources Canada, (Castlegar), 21 June 2008. Date of Access: 30 June 2008. http://news.gc.ca/web/view/en/index.jsp?do_as=true&view_as=results&categoryid=9&category=&regionid_as=&audienceid_as=&subjectid_as=&departmentid_as=6683|Natural%20Resources%20Canada&keyword_as=&df_as=1&mf_as=6&yf_as=2008&dt_as=30&mt_as=6&yt_as=2008&newstypeid_as=
[69] Government of Canada announces $18-million investment in Quebec Hydro Project, Natural Resources Canada, (RIVIÈRE-SAINT-JEAN), 20 June 2008. Date of Access: 20 June

Canada	Score

1C. Promote Less Emission-Intensive Energy Consumption +1

The commitment to promote less emission-intensive energy consumption addresses efforts to increase demand-side energy efficiency in areas such as buildings, appliances, transport, and industry. In this assessment, Canada receives a score of +1, reflecting a concerted effort to promote less energy-intensive consumption as compliance to its Heiligendamm commitment. This score is an improvement upon Canada's standing during the interim assessment period. On the basis of policy statements and affirmations, there is evidence that Canada is recognizing the potential for increasing energy efficiency in the domestic economy, and developing policy actions to address the challenge, particularly in the automobile sector. Furthermore, through Budget 2008 announcements and allocations, it is clear that Canada is fulfilling its previous policy statements. However, it must be noted that there is still some way to go in strengthening existing programmes, despite its recent efforts.

The domestic industrial sector offers significant opportunity for increased energy efficiency consumption. On 25 September 2007, at the annual meeting of Canada's Council of Energy Minister's, the Ministers agreed that Canada possesses the potential to reduce domestic energy demand to almost 25 % of today's energy use by 2030.[70] As an ongoing initiative, the government of Canada maintains data on energy consumption and energy efficiency at the end-use level in Canada through its National Energy Use Database (NEUD) initiative.[71] While not a new initiative within the assessment period, the update of available information provides a means for the government to gain an understanding of current energy consumption levels in Canada.

In terms of new initiatives, the government launched the latest version of RETScreen on 11 December 2007, a software used to inform the industrial sector of clean energy options.[72] While the software has typically dealt with renewable energy options, the updated version also supplies information about energy efficiency. Furthermore, on 29 March 2008, the government

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2008.
http://news.gc.ca/web/view/en/index.jsp?do_as=true&view_as=results&categoryid=9&category=&regionid_as=&audienceid_as=&subjectid_as=&departmentid_as=6683|Natural%20Resources%20Canada&keyword_as=&df_as=1&mf_as=6&yf_as=2008&dt_as=30&mt_as=6&yt_as=2008&newstypeid_as=

[70] Energy Ministers' Conference: Collaborating on Canada's Energy Future, Government of Canada, News Release, (Whistler, B.C.), 25 September 2007. Date of Access: 26 December 2007.
http://www.ecoaction.gc.ca/news-nouvelles/20070925-eng.cfm.

[71] Statistics and Analysis, Office of Energy Efficiency, (Ottawa), 18 January 2008. Date of Access: 1 June 2008. http://www.oee.nrcan.gc.ca/corporate/statistics/neud/dpa/home.cfm.

[72] Canada Launches Clean Energy Software, News Releases, Government of Canada, (Ottawa), 11 December 2007. Date of Access: 2 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20071211-eng.cfm.

announced a proposed Amendment 10 to the Energy Efficiency Regulations.[73] The proposed amendment intends to make current minimum energy performance standards for regulated products more rigorous as well as including an additional six products subject to compliance requirements.[74] This represents one of three planned amendments. In light of these announcements, it is clear that some steps have been taken to improve energy efficiency in the industrial sector.

In addressing domestic energy consumption, the government has made the greatest strides in the automobile sector. In a speech delivered on 5 December 2007, Minister Baird announced the government's intention to devise a national strategy imposing mandatory standards aimed at reducing GHG emissions across the transport sector, including automobiles, rail, marine, and air.[75] This commitment was reaffirmed by the Honourable Lawrence Cannon, Minister of Transport, Infrastructure and Communities on 17 January 2008, whereby Canada upheld a plan to regulate fuel consumption of new cars and light trucks for the first time.[76] The mandatory regulation will begin with the 2011 model year.[77] As a complementary measure, the government of Canada updated its list of vehicles for the 2008 model year that are eligible for the pre-existing ecoAUTO Rebate Program. The Rebate Program serves to provide consumer incentives for new, fuel-efficient vehicles, and influence consumer preferences before the mandatory measures are implemented.[78] Significantly, on 7 November 2007, the Motor Vehicle Fuel Consumption Standards Act was proclaimed into law, serving to regulate the fuel efficiency of vehicles, and representing an important step toward the beginning of a mandatory regulation.[79]

In the freight transport sector, the Honourable Lawrence Cannon announced on 6 May 2008 the plan to allocate CAD2.4 million in funding under Transport Canada's Freight Technology Demonstration Fund, and CAD3.7

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[73] Regulations Amending the Energy Efficiency Regulations, Canada Gazette, Vol. 142, No. 13, 29 March 2008. Date of Access 2 June 2008. http://canadagazette.gc.ca/partI/2008/20080329/html/regle4-e.html

[74] Regulations Amending the Energy Efficiency Regulations, Canada Gazette, Vol. 142, No. 13, 29 March 2008. Date of Access 2 June 2008. http://canadagazette.gc.ca/partI/2008/20080329/html/regle4-e.html

[75] Speech by the Honourable John Baird, Minister of the Environment at the Economic Club of Toronto, Environment Canada, (Ottawa), 5 December 2007. Date of Access: 3 January 2008. http://www.ec.gc.ca/default.asp?lang=En&n=6F2DE1CA-1&news=B593A1B8-57D2-408085C8-542C6017EA0E.

[76] Canada's First Motor Vehicle Fuel Consumption Regulations: Consultations Begin, Transport Canada, (Ottawa), 17 January 2008. Date of Access: 1 June 2008. http://www.tc.gc.ca/mediaroom/releases/nat/2008/08-h006e.htm.

[77] Canada's First Motor Vehicle Fuel Consumption Regulations: Consultations Begin, Transport Canada, (Ottawa), 17 January 2008. Date of Access: 1 June 2008. http://www.tc.gc.ca/mediaroom/releases/nat/2008/08-h006e.htm.

[78] List of 2008 Model Year Vehicles Eligible for the EcoAUTO Rebate Program, Transport Canada, (Ottawa), 7 December 2007. Date of Access: 2 January 2008. http://www.tc.gc.ca/mediaroom/releases/nat/2007/07-h238e.htm.

[79] Motor Vehicle Fuel Consumption Standards Act Proclaimed, News Release, Government of Canada, (Ottawa), 7 November 2007. Date of Access: 2 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20071107-eng.cfm.

million under the Freight Technology Incentives Program.[80] Under the umbrella of ecoFREIGHT initiatives, the programmes are in place to "help transport companies acquire available technology."[81]

In the building sector, the most significant programme are the EcoENERGY Retrofit Grants and Incentives, launched on 1 April 2007, and scheduled to finish in 31 March 2011.[82] According to Natural Resources Canada, the government is working to "encourage the adoption of more stringent energy codes," as well as "consulting with experts to develop a rating and labeling system for new and existing buildings."[83] On 20 June 2007, the Minister of Natural Resources, Gary Lunn, announced a CAD5 million initiative to update the Model National Energy Code for Buildings, complementing the government's ecoENERGY Initiatives.[84] The updated code will "establish minimum requirements to construct buildings," and is set to be published in 2012.[85]

The Canadian government has also taken action in addressing the issue of standby power to increase energy efficiency in consumer appliances. In June 2007, the government launched the Standby Power Advisory Committee, which offers an opportunity for stakeholders to act in a consultancy role with the government to reduce standby power consumption.[86] Furthermore, on 23 July 2007 the government announced that it will establish energy-efficiency regulations to "limit the amount of power consumed by products in standby mode," remaining consistent with the priorities highlighted by the IEA.[87] Accordingly, the plan to implement the regulations will occur in two phases, starting in 2008 with regards to consumer electronic products, followed by

[80] Government of Canada announces ecoFREIGHT funding to reduce greenhouse gas emissions from freight transportation, News Release, Government of Canada, (Ottawa), 6 May 2008. Date of Access: 3 May 2008. http://www.ecoaction.gc.ca/news-nouvelles/20080506-eng.cfm.
[81] Government of Canada announces ecoFREIGHT funding to reduce greenhouse gas emissions from freight transportation, News Release, Government of Canada, (Ottawa), 6 May 2008. Date of Access: 23 May 2008. http://www.ecoaction.gc.ca/news-nouvelles/20080506-eng.cfm.
[82] ecoENERGY Retrofit Grants and Incentives, Natural Resources Canada, (Ottawa), 16 July 2007. Date of Access: 28 December 2007. http://www.oee.nrcan.gc.ca/corporate/retrofit-summary.cfm?attr=0.
[83] Programs and Initiatives, Natural Resources Canada, (Ottawa), 8 August 2007. Date of Access: 28 December 2007. http://www.oee.nrcan.gc.ca/corporate/programs.cfm?attr=0#buildings-and-houses.
[84] Canada's New Government Invests $5 Million to Update Model National Energy Code for Buildings, News Releases, Government of Canada, (Ottawa), 20 June 2007. Date of Access: 3 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20070620-1-eng.cfm.
[85] Canada's New Government Invests $5 Million to Update Model National Energy Code for Buildings, News Releases, Government of Canada, (Ottawa), 20 June 2007. Date of Access: 3 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20070620-1-eng.cfm.
[86] Canada's New Government Targets Standby Power to Help Consumers Save Energy-Backgrounder, News Release, Government of Canada, (Ottawa), 23 July 2007. Date of Access: 27 December 2007. http://www.ecoaction.gc.ca/news-nouvelles/20070723-1-eng.cfm.
[87] Canada's New Government Targets Standby Power to Help Consumers Save Energy, News Release, Government of Canada, (Victoria), 23 July 2007. Date of Access: 2 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20070723-eng.cfm.

more 'stringent' standards in 2010.[88] Finally, on 4 April 2008, the Honourable Gary Lunn announced a new clean energy technology investment in Canada, whereby CAD5 million of the 2008 Budget is allocated for investment in the initiative.[89]

In light of this assessment, Canada receives a score of +1, indicating full compliance with the Heiligendamm commitment. Notably, there is evidence of new initiatives in areas such as transport and appliance energy efficiency. While there is evidence of budget allocations and official reaffirmation of intended policy, actual implementation of many of the regulations is set to take effect within 2-3 years, representing room for further improvement. Nonetheless, these declarations, combined with the strength of existing energy efficiency programmes, do reflect an intention to move beyond the official announcement phase and into a period of regulation implementation.

Analyst: Hilary Millar

Addendum:

- On 3 June 2008, the government of Canada announced the modernization of the Energy Efficiency Act. Through this act, approved in 1992, Canada implemented minimum energy performance standards for a number of products. The modernization will allow to increasing its scope and effectiveness. Canada will become one of the first countries in the world to be able to introduce comprehensive standards to regulate the amount of standby power consumed by many products.[90]

- On 4 June 2008, the Honourable Lawrence Cannon, Minister of Transport, Infrastructure and Communities, announced that the government of Canada will invest in 16 projects across the country to support environmentally friendly transportation.[91]

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[88] Canada's New Government Targets Standby Power to Help Consumers Save Energy, News Release, Government of Canada, (Victoria), 23 July 2007. Date of Access: 2 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20070723-eng.cfm.
[89] Minister Lunn Announces New Clean Energy Technology Investments, News Release, Government of Canada, (Calgary), 4 April 2008. Date of Access: 23 May 2008. http://www.ecoaction.gc.ca/news-nouvelles/20080404-eng.cfm.
[90] Using Less, Living Better: Government of Canada Modernizes Energy Efficiency Act, Canada News Centre, (Ottawa), 3 June 2008. Date of Access: 29 June 2008. http://news.gc.ca/web/view/en/index.jsp?articleid=402929&do_as=true&view_as=results&categoryid=9&category=&regionid_as=&audienceid_as=&subjectid_as=&departmentid_as=&keyword_as=climate+change&df_as=1&mf_as=6&yf_as=2008&dt_as=30&mt_as=6&yt_as=2008&newstypeid_as=1|News%20Releases.
[91] Government of Canada invests in sustainable transportation, Canada News Centre, (Ottawa), 4 June 2008. Date of Access: 30 June 2008. http://news.gc.ca/web/view/en/index.jsp?articleid=403089&do_as=true&view_as=results&categoryid=9&category=&regionid_as=&audienceid_as=&subjectid_as=&departmentid_as=6695|Transport%20Canada&keyword_as=&df_as=1&mf_as=6&yf_as=2008&dt_as=30&mt_as=6&yt_as=2008&newstypeid_as=&page=1.

Canada	Score
1D. Support for Climate Adaptation in DCs	**0**

Canada is partially in compliance with its commitment to target climate adaptation in developing countries. This is based on Canada's commitments to assist in generating information and data to assess vulnerability to climate change, and implement projects targeting adaptation to the impacts climate change. Canada has improved its capacity to generate information, and has implemented a project to improve Chile's collection of climate change data. On the project implementation side, the Canadian government has provided substantial new funding for multilateral development projects since the G8 Heiligendamm Summit. However, few new bilateral projects have been developed.

Canada has upheld its commitment to assist in generating information and data to assess vulnerability to climate change. Data related to climate change are collected by the RADARSAT-1 satellite, which is equipped with remote sensing capabilities, and was developed by the Canadian Space Agency (CSA).[92] The launch of RADARSAT-2 on 14 December 2007 will herald advancements in data collection[93]. The satellites measure surface textures, ground cover, and moisture levels to monitor the impacts of climate change.[94] Canada and Chile signed a memorandum of understanding on 26 July 2007, to develop land information systems using Canadian technology and expertise.[95] These will help Chile build capacity to adapt to climate change in a number of sectors, including mineral development, forestry, and agriculture.[96]

Another development that will increase Canada's capacity to assess developing countries' vulnerability to climate change is Environment Canada's Memorandum of Understanding with the National Oceanic and Atmospheric Administration (NOAA), signed 22 January 2008.[97] Undersecretary of commerce for oceans and atmosphere and NOAA administrator retired Navy

[92] RADARSAT-1, Canadian Space Agency, (Longueuil), 4 November 2004. Date of Access: 3 January 2008. http://www.space.gc.ca/asc/eng/satellites/radarsat1/default.asp.
[93] Successful Launch of RADARSAT-2, Canadian Space Agency, (Longueuil), 14 December 2007. Date of Access: 3 January 2008. http://www.space.gc.ca/asc/eng/media/news_releases/2007/1214.asp.
[94] A Sampling of Projects at CIDA, Canadian International Development Agency, (Ottawa), 11 November 2007. Date of Access: 3 January 2008. http://www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/EMA-218125632-P53.
[95] Canada's New Government Strengthens Ties with Chile with Mapping Agreement, Natural Resources Canada, (Ottawa), 26 July 2007. Date of Access: 3 January 2008. http://www.nrcan-rncan.gc.ca/media/newsreleases/2007/200772_e.htm.
[96] Canada's New Government Strengthens Ties with Chile with Mapping Agreement, Natural Resources Canada, (Ottawa), 26 July 2007. Date of Access: 3 January 2008. http://www.nrcan-rncan.gc.ca/media/newsreleases/2007/200772_e.htm.
[97] US and Canada Sign Agreement to Work Together on Weather and Climate Research, Government of Canada ecoAction, (Ottawa), 22 January 2008. Date of Access: 4 June 2008. http://www.ecoaction.gc.ca/news-nouvelles/20080122-eng.cfm.

Vice Adm. Conrad Lautchenbacher claimed this agreement allows NOAA and Environment Canada to "broaden our collaboration to enhance health, safety and economic prosperity for our countries and the world."[98] Another international agreement on monitoring climate that Canada is party to is the Group on Earth Observation (GOE). The Canada Centre for Remote Sensing is involved in the GOE, which co-ordinates efforts to build a Global Earth Observation System of Systems.[99] In May 2008, Canada hosted a workshop in Toronto for the GOE, and it will host another workshop in Quebec City in September.[100]

Technology transfer to developing countries can help them develop the capacity to adapt to climate change. In this respect, the international division of the Earth Sciences Sector of the Department of Natural Resources announced that it will send a Geomatics Science and Technology Partnering Mission to Beijing between 30 June to 4 July 2008.[101] This mission will showcase technologies that can be used for emergency response, land administration, agriculture, resource management infrastructure development, and marine.[102] On 22 May 2008, International Science and Technology Partnerships Canada announced 20 joint research and development initiatives between Canadian and Chinese companies.[103] A number of these initiatives focus on sharing agricultural and energy expertise that can help China adapt to climate change.[104]

The implementation of climate adaptation projects is supported by Canada through international involvement and bi-lateral adaptation projects developed by the Canadian International Development Agency (CIDA). Funding announcements for international projects have been made at the executive level. However, the objective of supporting climate adaptation in developing countries seems to carry little weight on the executive agenda. Canadian projects that target climate adaptation in developing countries are managed on the agency level, by CIDA, or through the Canadian International

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[98] US and Canada Sign Agreement to Work Together on Weather and Climate Research, Government of Canada ecoAction, (Ottawa), 22 January 2008. Date of Access: 4 June 2008. http://www.ecoaction.gc.ca/news-nouvelles/20080122-eng.cfm.
[99] International Activities: Group on Earth Observations, Natural Resources Canada, (Ottawa), 11 January 2008. Date of Access: 4 June 2008. http://ess.nrcan.gc.ca/intl/intl_activities/na/geo_e.php.
[100] Meetings and Events, Group on Earth Observations, (Geneva), 21 May 2008. Date of Access: 4 June 2008. http://earthobservations.org/meetings/meetings.html.
[101] International Activities: Earth Sciences Sector Upcoming Business Missions, Natural Resources Canada, (Ottawa), 16 May 2008. Date of Access: 4 June 2008. http://ess.nrcan.gc.ca/intl/intl_activities/asia/trade_e.php.
[102] International Activities: Earth Sciences Sector Upcoming Business Missions, Natural Resources Canada, (Ottawa), 16 May 2008. Date of Access: 4 June 2008. http://ess.nrcan.gc.ca/intl/intl_activities/asia/trade_e.php.
[103] Canada and China Announce New Joint Science and Technology Initiatives, Foreign Affairs and International Trade Canada, (Ottawa), 22 May 2008. Date of Access: 4 June 2008. http://w01.international.gc.ca/MinPub/Publication.aspx?isRedirect=True&Language=E&publication_id=386209&docnumber=125.
[104] ISTP Canada Announces 20 Joint Science and Technology Initiatives Between Canadian and Chinese Companies Valued at More than $12 Million, International Science and Technology Partnerships Canada, (Ottawa), 22 May 2008. Date of Access: 4 June 2008. http://www.istpcanada.ca/NewsEvents/PressReleases/China_Announcement.html.

Development Research Centre (IDRC), a crown corporation. For the most part, the projects sponsored by these organizations are ongoing, with few major projects being announced since the Heiligendamn Summit.

Canada has maintained its participation in multilateral initiatives aimed at assessing developing countries' vulnerability to climate change and implementing adaptation projects. During the United Nations Climate Change Conference of December 2007 in Bali, Environment Minister John Baird announced a voluntary CAD7.5 million contribution to the Special Climate Change Fund (SCCF),[105] which assesses and finances adaptation projects. This new contribution brings Canada's total contributions to CAD13.5 million, second only to the UK.[106] The SCCF is run by the Global Environment Facility (GEF), in which Canada has a seat and provides scientific and technical advice on programs.[107] Minister Baird announced another CAD1.5 million contribution to the Clean Development Mechanism (CDM), which gives the private sector incentives to invest in environmentally friendly projects in the developing world.[108] Access to CDM was improved on 10 March 2008, when the Canadian government published details on the Turning the Corner Regulatory Framework, which was drafted to reduce greenhouse gas emissions.[109]

Most of Canada's bilateral initiatives to promote climate adaptation in developing countries are managed by CIDA. CIDA's major environmental sustainability projects were developed prior to the G8 conference at Heiligendamn in CIDA's 2007-2009 sustainability strategy. However, new CIDA funded projects managed by Canadian universities were announced in November 2007, three of which target the adaptation to climate change impacts. These include building a national strategy in forestry and agricultural management in Mali,[110] a sustainability project in Bangladesh,[111] and a water

[105] Canada Takes Action to Help Developing Countries Fight Climate Change, Environment Canada, (Ottawa), 10 December 2007. Date of Access: 3 January 2008. http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=323B0F50-9F66-424A-AF64-34EDBFB1A461.
[106] Backgrounder: Canada Enhances its Support to the Special Climate Change Fund for Developing Countries, Environment Canada, (Ottawa), 19 March 2007. Date of Access: 3 January 2008. http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=27C1A28F-4BE5-475C-A32E-7F90E5F00D5B.
[107] United Nations Organizations/Agencies: Global Environment Facility (GEF), Environment Canada, (Ottawa), 27 April 2007. Date of Access: 3 January 2008. http://www.ec.gc.ca/international/unorgs/gef_e.htm.
[108] Canada Demonstrates Commitment to UN Clean Development Mechanism, Government of Canada ecoAction, (Ottawa), 13 December 2007. Date of Access: 3 January 2008. http://www.ecoaction.gc.ca/news-nouvelles/20071213-eng.cfm.
[109] Government Delivers Details of Greenhouse Gas Regulatory Framework, Government of Canada ecoAction, (Ottawa), 10 March 2008. Date of Access: 4 June 2008. http://www.ecoaction.gc.ca/news-nouvelles/20080310-eng.cfm.
[110] The Government of Canada Supports Université Laval in a Development Project in Mali, Canadian International Development Agency, (Ottawa), 30 November 2007. Date of Access: 3 January 2008. http://www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/ANI-1130114913-MQT.
[111] The Government of Canada Supports Canadian University to Deliver Development Aid Projects, Canadian International Development Agency, (Ottawa), 16 November 2007. Date of Access: 3 January 2008. http://www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/NAT-1116113644-MGZ.

management project in Bolivia.[112] In February 2008, CIDA announced seven sustainable development projects for Haiti, including one project increasing Haiti's ability to respond to natural disasters.[113] CIDA also funds an Environmental Governance and Sustainable Livelihoods program in Indonesia, launched in 2008.[114]

The Climate Change Adaptation in Africa (CCAA) program is funded by the Canadian International Development Research Centre and the United Kingdom's Department for International Development.[115] This fund works to improve African countries' capacity to adapt to climate change, with a focus on the most vulnerable.[116] The CCAA has funded a number of climate adaptation projects since the Heiligendamn Summit, mostly focused on education, training, and communication. Training workshops in August aimed to give African partner organizations the skills to apply for funding and implement projects.[117] The African Climate Change Fellowships offered 58 fellowships for scholarly work on climate change and adaptation.[118] In February 2008, the CCAA launched a project to establish a network that would share knowledge about climate adaptation to improve the livelihood of the most vulnerable people in Africa.[119]

CIDA development projects and federal financial support to international adaptation funds demonstrate Canada's commitment to implement adaptation projects. As a leader in the earth sciences, Canada assists in generating information and data to assess vulnerability to climate change. However, while Canada's international commitments have grown, the government has developed few bilateral projects focusing on climate adaptation. Furthermore, Canada has not put any particular emphasis on directing expertise and resources toward LDCs. Canada therefore only

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[112] Canada Supports the University of Calgary in a Development Project in Bolivia, Canadian International Development Agency, (Ottawa), 16 November 2007. Date of Access: 3 January 2008. http://www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/NAT-1116112056-M75.
[113] Canada Announces Seven Sustainable Development Projects for Haiti, Canadian International Development Agency, (Ottawa), 15 February 2008. Date of Access: 4 June 2008. http://www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/NAT-21513538-Q69.
[114] Environmental Governance and Sustainable Livelihoods, Canadian International Development Agency, (Ottawa), 5 June 2008. Date of Access: 5 June 2008. http://www.acdi-cida.gc.ca/cidaweb/cpo.nsf/vLUWebProjEn/4D0120AF542E08D6852571FF003C93EE?OpenDocument.
[115] Africa and Climate Change: Adapt, Survive, Thrive? Science and Development Network, (London), 1 August 2007. Date of Access: 4 June 2008. http://www.scidev.net/en/climate-change-and-energy/features/africa-and-climate-change-adapt-survive-thrive.html.
[116] CCAA program activities, International Development Research Centre, (Ottawa), 21 February 2008. Date of Access: 4 June 2008. http://www.idrc.ca/rpe/ev-94557-201-1-DO_TOPIC.html.
[117] CCAA training workshops, International Development Research Centre, (Ottawa), 20 October 2007, Date of Access: 4 June, 2008. http://www.idrc.ca/rpe/ev-116257-201-1-DO_TOPIC.html.
[118] African Climate Change Fellowships, International Development Research Centre, (Ottawa), 5 November 2008. Date of Access: 4 June 2008. http://www.idrc.ca/rpe/ev-116704-201-1-DO_TOPIC.html.
[119] New project to support communication and networking on adaptation, International Development Research Centre, (Ottawa), 20 February 2008. Date of Access: 4 June 2008. http://www.idrc.ca/rpe/ev-120865-201-1-DO_TOPIC.html.

partially complies with its commitment to support climate adaptation in developing countries throughout the period of June 2007 to January 2008.

Analyst: Tess Lorriman

Canada	**Score**
1E. Reducing GHG Emissions by Curbing Deforestation	**0**

Canada is home to almost 25 % of the world's remaining boreal forest. Yet, since the G8 Heiligendamm Summit, the Canada government's activities on curbing deforestation have largely been limited to official reaffirmations of the commitments it made at Heiligendamm in June 2007. Although some forested areas have been protected in northern Canada, and a small number of projects have included assistance to developing countries in protecting their forests (albeit tangentially in some cases), Canada has only partially fulfilled its Heiligendamm commitments, and thus receives a score of 0.

Following Heiligendamm, Canada reiterated its commitments on deforestation and sustainable forest management at a number of other international fora. In the week following the G8 Heiligendamm Summit, Canada joined officials from 30 countries for a four-day informal meeting on climate change hosted by Sweden in the town of Riksgransen, where ministers discussed further action on deforestation, and agreed that this issue should receive urgent attention.[120] At the Asia-Pacific Economic Cooperation (APEC) Leaders' Meeting in Sydney in September 2007, Canada signed a final declaration that cited forests as one of the issues that "must underpin an equitable and effective post-2012 international climate change arrangement."[121] The declaration also announced an "Action Agenda" that included commitments to "work to achieve an APEC-wide aspirational goal of increasing forest cover in the [APEC] region by at least 20 million hectares of all types of forests by 2020," and to "establish an Asia-Pacific Network for Sustainable Forest Management and Rehabilitation to enhance capacity building and strengthen information sharing in the forestry sector," which would include collaboration with other regional initiatives such as the Asia Forest Partnership.

Following the APEC meeting, Prime Minister Harper made a "Joint Statement on Climate and Energy" with Australian Prime Minister John Howard in Canberra that committed to "promot[ing] enhanced implementation of sustainable forest management, including the link between sustainable

[120] Informal Talks Help Ministers Shape New Climate Regime, Environment News Service, (Riksgransen, Sweden), 15 June 2007. Date of Access: 27 December 2007. http://www.ens-newswire.com/ens/jun2007/2007-06-15-03.asp.
[121] Sydney APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development, Asia-Pacific Economic Cooperation, (Sydney), 9 September 2007. Date of Access: 27 December 2007.
http://www.apec.org/apec/leaders__declarations/2007/aelm_climatechange.html.

management of forests and climate change."[122] In the statement, Canada highlighted "its interest in achieving agreement of like-minded countries on a legally-binding instrument on sustainable forest management." Canada had earlier participated in the High-Level Meeting of 63 countries under Australia's Global Initiative on Forests and Climate in Sydney in July 2007, aimed at "significantly reducing greenhouse gas emissions through projects to tackle deforestation."[123] In the Joint Statement in September 2007, Canada committed with Australia to "explore actively working together on the Global Initiative on Forest and Climate"[124] (though this appears to be the only mention of the Global Initiative on any Canadian government Web site). Finally, at the UN Climate Change Conference in Bali in December, Canada was among the countries calling for deforestation to be part of the framework for a post-2012 climate change agreement.[125]

More recently, in a report on its 2008-2009 priorities tabled in the House of Commons on 31 March, Natural Resources Canada stated among its objectives the government's desire to market Canada as a "globally-recognized leader of forest sector sustainability" and to "encourage the emulation of our high standards of sustainable forest management by other forest countries." The 2008 federal budget, tabled in the House of Commons on 26 February, allocated CAD 10 million over two years to this purpose.[126]

At the annual G8 Environment Ministers Meeting in Kobe, Japan, from 24 to 26 May, Environment Minister John Baird joined his fellow ministers in adopting the "Kobe Call for Action for Biodiversity." Among other things, the document called upon all countries to work together in promoting sustainable forest management "by improving forest governance and by addressing illegal logging and related trade collectively and individually," and to "reduce emissions from deforestation and forest degradation in developing countries."[127]

Beyond official statements of affirmation or intent, several new measures to protect Canadian forests have been announced since June 2007. On 21 November 2007, Minister Baird announced the withdrawal of over 100,000

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[122] Backgrounder - Australia and Canada - Joint Statement on Climate Change and Energy, Office of the Prime Minister, (Ottawa), 11 September 2007. Date of Access: 27 December 2007. http://www.pm.gc.ca/includes/send_friend_eMail_print.asp?id=1820.
[123] Global Initiative on Forests and Climate, Government of Australia, Department of Climate Change, (Canberra), 2007. Date of Access: 27 December 2007. http://www.greenhouse.gov.au/international/forests/pubs/gifc-booklet.pdf.
[124] Backgrounder - Australia and Canada - Joint Statement on Climate Change and Energy, Office of the Prime Minister, (Ottawa), 11 September 2007. Date of Access: 27 December 2007. http://www.pm.gc.ca/includes/send_friend_eMail_print.asp?id=1820.
[125] Earth Negotiations Bulletin: COP 13 and COP/MOP 3 Highlights: Tuesday, 4 December 2007, International Institute for Sustainable Development (IISD) Reporting Services, (Nusa Dua, Indonesia), 5 December 2007. Date of Access: 27 December 2007. http://www.iisd.ca/download/pdf/enb12345e.pdf.
[126] The Budget Plan 2008: Responsible Leadership, Ministry of Finance, (Ottawa), 26 February 2008. Date of Access: 26 June 2008. http://www.budget.gc.ca/2008/pdf/plan-eng.pdf, p. 127.
[127] G8 Environment Ministers Meeting, "Kobe Call for Action for Biodiversity," 24-26 May 2008, Date of Access: 16 June 2008. http://www.env.go.jp/en/headline/file_view.php?serial=237&hou_id=792.

square kilometres of boreal forest from industrial development at two additional sites in the Northwest Territories, which according to one media source, amounted to "the largest land withdrawal for interim protection in Canadian history."[128] On 7 April, Baird announced the creation of a new National Park Reserve in the Northwest Territories.[129] The Nááts'ihch'oh National Park Reserve will be approximately 7,700 square kilometres, or about one-and-a-half times the size of the province of Prince Edward Island.[130] It is adjacent to the Nahanni National Park Reserve. Prime Minister Stephen Harper noted the creation of this new National Park Reserve when he addressed the 9th Conference of the Parties to the Convention on Biological Diversity in Bonn on 28 May.[131] On 22 May, the 2008 International Day for Biological Diversity, Environment Minister John Baird and Agriculture and Agri-Food Minister Gerry Ritz noted that the government's action to protect large areas of land "increased our total protected land area to well beyond the 10% target for 2010."[132]

The commitments at Heiligendamm, however, were focused primarily on helping developing countries to protect their forests, and in this area Canada's actions were of a more limited and fragmented in nature.

The Canadian government has initiated a number of projects to protect forests in developing countries. On 28 June 2007, Canada announced a project in Michoacan, Mexico, implemented through the North American Free Trade Agreement's Commission for Environmental Co-operation (CEC). While the project contributed to reducing GHG emissions by carbon dioxide keeping Mexican forests intact, its chief purpose was to protect the habitat of the monarch butterfly whose winter nesting grounds are threatened by illegal logging.[133] In a document dated 26 October 2007, the Canadian International Development Agency (CIDA) briefly describes its proposed Central Africa Regional Tropical Forest Management Programme, which would aim to help protect Central Africa's forests through sustainable forest management and community engagement, with the aim of "conservation and regeneration of

[128] Government of Canada Takes Landmark Action to Conserve Canada's North, Parks Canada, (Ottawa), 21 November 2007. Date of Access: 27 December 2007. http://news.gc.ca/web/view/en/index.jsp?articleid=362739&.
[129] Government of Canada Announces the Protection of More Precious Land in Canada's North, Government of Canada, (Ottawa), 7 April 2008, Date of Access: 14 June 2008. http://news.gc.ca/web/view/en/index.jsp?articleid=390559.
[130] Canada to create giant new northern national park, Reuters, 7 April 2008. Date of Access: 16 June 2008. http://uk.reuters.com/article/environmentNews/idUKN0727423920080407.
[131] Prime Minister Harper addresses UN Conference on the Convention on Biological Diversity, Office of the Prime Minister, (Ottawa), 28 May 2008. Date of Access: 17 June 2008. http://pm.gc.ca/eng/media.asp?id=2126.
[132] Ministers Baird and Ritz Celebrate 2008 International Day for Biological Diversity, Environment Canada, (Ottawa), 22 May 2008. Date of Access: 16 June 2008. http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=52B23BFA-DC4F-4252-ACF7-B01C71986392.
[133] Canada, Mexico Unite to Save Monarch Butterfly Habitat, CBC News, (Toronto), 28 June 2007. Date of Access: 27 December 2007. http://origin.www.cbc.ca/world/story/2007/06/28/mexico-butterfly-070628.html.

the tree cover."[134] Monitoring is to be done in cooperation with recipient governments and other donor nations in the Congo Basin Forest Partnership. Similar projects will likely be implemented through the World Bank's new Forest Carbon Partnership Facility, announced in October 2007, and officially launched at the United Nations Climate Change Conference in Bali in December 2007, though it is not yet clear what Canada's contribution may be.[135]

Canada has also sought to faciliitate the transfer and sharing of information with developing countries. On 26 July 2007, Gary Lunn, Minister of Natural Resources, announced a mapping agreement with Chile intended to share Canada's knowledge in geospatial information systems in, among other areas, forest management, and to "facilitate collaboration in developing these systems further in Chile."[136] On 1 August 2007, at the Association of Southeast Asian Nations (ASEAN)-Canada Post-Ministerial Conference in Manila, Deputy Minister of Foreign Affairs Leonard Edwards met with ASEAN ministers to adopt the Second ASEAN-Canada Joint Cooperation Work Plan for 2007-2010, which included commitments to "examine scope for exchange of information on climate change, including land use, land use change and forestry"; to "promote and develop cooperation . . . in areas such as . . . sustainable forest management"; and to "promote networking between government authorities" on forestry.[137] In November 2007, the Canadian Model Forest Network of Natural Resources Canada (the federal ministry of natural resources) announced that it would be sharing its knowledge in sustainable forest management by hosting the next International Model Forest Network Global Forum, in Alberta in June 2008.[138]

The Canadian government has been involved in a variety of conferences regarding forests in developing countries. Environment Canada sponsored and co-chaired an Americas-wide symposium entitled "Climate Change and Biodiversity in the Americas" that focused on forest management in the face of climate change. The Canadian International Development Agency "provided substantial resources to ensure participation from countries in the Americas."[139] As a member of the Congo Basin Forest Partnership, Canada participated in the International Conference on Financing Mechanisms for

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[134] Central Africa Regional Tropical Forest Management Programme, Canadian International Development Agency, (Ottawa), 26 October 2007. Date of Access: 27 December 2007. http://www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/NAT-10259514-J9G.
[135] Two New World Bank Carbon Facilities Will Help Fight Climate Change and Deforestation, World Bank, (Washington), 11 October 2007. Date of Access: 27 December 2007. http://go.worldbank.org/IDLC46JNT0.
[136] Notes for a Speech by The Honourable Gary Lunn on Announcement of Mapping Agreement with Chile, Natural Resources Canada, (Ottawa), 26 July 2007. Date of Access: 27 December 2007. http://www.nrcan.gc.ca/media/speeches/2007/200776_e.htm.
[137] 2nd ASEAN-Canada Joint Cooperation Work Plan (2007-10), (Manila), 1 August 2007. Date of Access: 27 December 2007. http://www.aseansec.org/20800.pdf.
[138] International Model Forest Network Global Forum 2008, Natural Resources Canada – Canadian Forest Service, (Ottawa). Date of Access: 27 December 2007. http://www.modelforest.net/cmfn/en/news_events/events/events_record.aspx?title_id=4797.
[139] Climate Change and Biodiversity in the Americas, Environment Canada, (Ottawa), 16 February 2008. Date of Access: 15 June 2008. http://www.climatechangeandbiodiversity.ca/pdfs/panamanew.pdf.

Sustainable Management of the Congo Basin Forest Ecosystems in Tunis, Tunisia, on 21-22 February.[140] Most significantly, Canada hosted on 23-24 January, the third in its series of meetings of "like-minded countries" on developing a legally-bind instrument for sustainable forest management. Although Canada supported the "Non-Legally Binding Instrument on All Types of Forests" adopted at the Seventh Session of the United Nation Forum on Forests (UNFF) in April 2007, the government noted as far back as the Second Session of the UNFF in 2002 that "as Canada strongly believes that sustainable management of the world's forests requires more than voluntary efforts, we will continue to promote the adoption of a legally binding instrument on all types of forest as the only effective means of encouraging countries to fully and urgently implement SFM [sustainable forest management]."[141] The meeting, led by Canada, was held in Toronto, and was attended by representatives from 29 countries. Delegates voiced considerable support for implementation of the UNFF "Non-Legally Binding Instrument on All Types of Forests," but several countries also indicated they would like to have the UNFF negotiate a legally-binding instrument. Canada said it would prepare a "roadmap" for its legally-binding instrument and would explore hosting a final preparatory meeting in the coming months.[142]

Finally, Canada has sought to include forest protection in new free-trade agreements signed with the Andean Community. The first of these, a free-trade agreement with Peru signed in Lima on 28 May, included an "Agreement on the Environment." The agreement committed Canada to "working with Peru to help protect and conserve biological diversity," such as the country's rainforests, through consultations and exchange of information with the country's newly-created Ministry of the Environment.[143] On 7 June, Canada made similar commitments in an "Agreement on the Environment" as part of trade negotiations with Colombia.[144]

Canada's actions since the G8 Heiligendamm Summit to protect forests domestically have provided a boost to efforts to reduce deforestation in Canada's vast boreal forests, but efforts to help reduce deforestation in developing countries, which received greater emphasis in the Heiligendamm

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[140] Financing mechanisms for sustainable forest management in the Congo Basin, Global Mechanism of the United Nations Convention to Combat Desertification, 10 March 2008. Date of Access: 15 June 2008. http://www.global-mechanism.org/news--events/news/financing-mechanisms-for-sustainable-forest-management-in-the-congo-basin1.

[141]Topics of Interest: United Nations Forum on Forests, Natural Resources Canada, (Ottawa), 1 September 2002, Date of Access: 6 January 2008. http://foretscanada.rncan.gc.ca/articletopic/53.

[142] Government of Australia, Forestlinks, Legally Binding Instrument for Sustainable Forest Management: Canada Meeting, February 2008, http://www.daff.gov.au/__data/assets/pdf_file/0011/588683/forestlinks-feb08-11.pdf.

[143] Foreign Affairs and International Trade Canada, "Canada Signs Free Trade, Labour Cooperation and Environment Agreements with Peru," 29 May 2008, http://w01.international.gc.ca/MinPub/Publication.aspx?isRedirect=True&Language=E&publication_id=386239&docnumber=130.

[144] Foreign Affairs and International Trade Canada, "Canada Concludes Negotiations for Free Trade, Labour Cooperation and Environment Agreements with Colombia," http://w01.international.gc.ca/minpub/Publication.aspx?isRedirect=True&publication_id=386266&language=E&docnumber=135.

commitments, have been more fragmented. Preventing deforestation is often only a peripheral factor in larger programs or projects. More will need to be done in the coming months to achieve full compliance with the commitments made in Heiligendamm, and as a result of this shortcoming, Canada receives only a score of partial compliance with this commitment.

Analyst: Aaron Holdway

European Union

Background

The EU is a diffuse set of institutions, with policy making dispersed among multiple levels of governance and between different actors. Key institutions of the EU include the European Council, comprised of heads of state or government of the member states; the Council of Ministers of the European Union, comprised of government ministers of the member states; the European Commission, comprised of individuals nominated by the governments of the member states and approved by the European Parliament; and the European Parliament itself, with members who are elected every five years.[145] The European Parliament and the Council of the European Union share the responsibility of enacting European legislation, while the European Commission has sole right to initiate legislation.[146] The European Commission is also responsible for ensuring that member states abide by the European legislation, and can initiate legal proceedings against those that do not comply in the European Court of Justice.[147]

In the G8 process, the European Union is represented by the President of the European Commission, and the leader of the country that holds the Presidency of the European Union. While policy-making often occurs at the level of the EU institutions, implementation is ultimately a matter for EU member states, making compliance with G8 commitments necessarily difficult to assess.[148] In general terms, the most notable actions undertaken by the EU during the compliance period were: (i) activities in connection with the Conference of the Parties (COP)-13 in Bali in December 2007; and (ii) the announcement of a comprehensive package of climate change proposals by the European Commission on 23 January 2008. On 30 October 2007, the European Commission presented a list of goals for the Bali negotiations, which according to Environment Commissioner Stavros Dimas provided

[145] How is the EU Organised?, European Union, (Brussels). Date of Access: 4 January 2008. http://europa.eu/abc/panorama/howorganised/index_en.htm.
[146] How is the EU Organised?, European Union, (Brussels). Date of Access: 4 January 2008. http://europa.eu/abc/panorama/howorganised/index_en.htm.
[147] The EU currently comprises Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.[147] Croatia, the Former Yugoslav Republic of Macedonia, and Turkey are currently candidate countries. See How is the EU Organised?, European Union, (Brussels). Date of Access: 4 January 2008. http://europa.eu/abc/panorama/howorganised/index_en.htm.
[148] European Countries, European Union, (Brussels). Date of Access: 4 January 2008. http://europa.eu/abc/european_countries/index_en.htm.

evidence of the fact that "the EU has broken the link between economic growth and CO_2 emissions".[149]

On 23 January 2008, the European Commission launched a comprehensive package of climate change policy proposals, which build on the conclusions of the European Council meeting of March 2007. These proposals constitute by far the most ambitious climate action plan among G8 members.[150] Under these plans, it is proposed that the EU Emissions Trading Scheme (ETS) be extended to include all greenhouse gases and all major industrial emitters, and that overall emissions under the EU ETS be reduced by 21 % by 2020 compared with 2005. Furthermore, it is proposed that the EU as a whole provide 20 % of its energy consumption from renewable energy sources by 2020. It is hoped that overall agreement will be reached on the European Commission's proposals by the end of 2008.[151] For this and other reasons, the EU has registered full compliance with the five commitment areas analyzed in this report.

Team Leader and Analyst: Diarmuid Torney

European Union	**Score**
1A. Stabilise GHG Concentrations	**+1**

With ambitious binding domestic targets for the stabilization of greenhouse gases (GHG) and significant internal legislation, funding and international actions to back them up, the EU is becoming a global leader in the fight against climate change. The EU's official policy goal is to limit global warming to no more than 2°C above pre-industrial temperatures.[152] According to the European Commission, this aim is most likely to be met if concentrations of atmospheric GHG are kept at a lower level than 550 ppm CO_2 eq.[153] In order to limit concentrations at this level, EU member states have agreed among themselves to a set of binding targets for 2020, requiring a 20 % cut in GHG

[149] EU Seeks Global Road map at Bali Climate Talks, Euractiv, 3 December 2007. Date of Access: 3 January 2008. http://www.euractiv.com/en/climate-change/eu-seeks-global-roadmap-bali-climate-talks/article-168715.
[150] Boosting Growth and Jobs by Meeting our Climate Change Commitments, European Commission, (Brussels), 23 January 2008. Date of Access: 28 January 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/80&format=HTML&aged=0&language=EN&guiLanguage=en.
[151] Building a Global Low-Carbon Economy, European Commission, (Brussels), 23 January 2008. Date of Access: 28 January 2008. http://ec.europa.eu/commission_barroso/president/focus/energy-package-2008/index_en.htm#press.
[152] Climate change and the EU's Response, memo/07/515, European Union, (Brussels), 27 November 2007. Date of Access: 14 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/515&format=HTML&aged=0%3Cuage=EN&guiLanguage=en.
[153] Winning the Battle Against Global Climate Change, memo/05/42, European Union, (Brussels), 9 February 2005. Date of Access 14 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/05/42&format=HTML&aged=1&language=EN&guiLanguage=en.

emissions from 1990 levels, or alternatively, a 30 % cut provided that other developed – and economically advanced developing – countries also make significant commitments.[154] At the COP-13 in Bali, the EU moreover proposed that developed countries collectively reduce emissions by 60 to 80 % by 2050 compared with 1990 levels.[155]

In evaluating the EU's compliance with this commitment, it is important to note that the EU has already taken significant steps to implement long-term initiatives in order to stabilize GHG concentrations, some of which were referenced in last year's report.[156] Most ambitiously, these policies include the EU Emissions Trading Scheme (EU ETS) (including its use of Clean Development Mechanism and Joint Implementation credits), which restricts CO_2 emissions from some 10,500 energy-intensive installations in the power generation and manufacturing industry. Under the umbrella of the European Climate Change Program, it has issued requirements to promote electricity produced from renewables (including biofuels); minimum energy performance standards for buildings; energy efficiency labelling requirements; energy efficiency requirements for industrial and agricultural installations; funding forest management and natural forest expansion; major steps—including research funding—towards encouraging innovative energy technologies in hydrocarbon production and use; minimum tax rates for energy products; international energy initiatives; as well as various public awareness campaigns.[157]

Over the last year, the EU initiated a wide range of new measures aimed at stabilizing GHG emissions as well as strengthening provisions already in force. First of all, several policies were initiated which - while not legally binding - confirmed the EU's commitment to curb GHG emissions. One of these was the proposal by the European Commission to build a Global Climate Change Alliance (GCCA) between the EU and poor developing countries (for details see section 1D).[158] Another was the International Carbon Action Partnership entered into by the European Commission to share experiences and best practices with other governments and public authorities on the

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[154] Agreement from the 2826th Meeting of Council of European Union, 14178/07, Council of the European Union, (Brussels), 30 October 2007. Date of Access: 14 December 2007. http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/envir/96961.pdf.
[155] Winning the Battle Against Global Climate Change, memo/05/42, European Union, (Brussels), 9 February 2005. Date of Access 14 December 2007. http://europa.eu/rapid/pressReleasesction.do?reference=MEMO/05/42&format=HTML&aged=1&language=EN&guiLanguage=en.
[156] Governing Global Climate Change: St. Petersburg Final Compliance Report, G8 Research Group – Oxford Branch, (Oxford), 2007. Date of Access: 14 December 2007. http://www.g7.utoronto.ca/evaluations/2006compliance_final/2006_g8compliance_final.pdf.
[157] The European Climate Change Programme, European Commission, (Brussels), 2006. Date of Access: 14 December 2007. http://ec.europa.eu/environment/climat/pdf/eu_climate_change_progr.pdf.
[158] Commission Proposes a Global Alliance to Help Developing Countries Most Affected by Climate Change, European Commission, (Brussels), 18 September 2007. Date of Access: 14 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1352&format=HTML&aged=0&language=EN&guiLanguage=en.

design of emission trading schemes.[159] Within the EU, the European Commission furthermore launched an initiative so far involving 100 cities throughout Europe, including 15 capitals, which will commit themselves to go beyond the overall objectives of the EU by reducing their CO_2 emissions by more than 20 % by 2020.[160] While the initiative is intended to be formally binding, and results will be monitored, it is unsure based on the current plans, whether, how, and to what extent enforcement can take place if included cities fail to comply with their commitments.

Apart from such initiatives, the EU moreover initiated wide-reaching measures, which will have legally binding effects on Member States. With respect to fuel efficiency, the European Environment Agency showed in a recent study that voluntary commitments by car manufacturers have not led to substantial gains.[161] With 12 % of overall EU emissions coming from burnt fuel from passenger cars, the Commission therefore proposed legally binding legislation fuel standards on 19 December 2007.[162] The proposal will reduce average CO_2 emissions from new passenger cars from 160 grams per kilometre to 130 grams per kilometre in 2012. Further complementary measures will reduce emissions even further by 10 grams per kilometre thereby reaching EU's overall goal of a fuel efficiency in new cars of 120 grams per kilometre. If successful, the proposal is projected to lead to a 19 % reduction of CO_2 emissions in this sector.

With respect to the EU ETS, the Council of Ministers invited the European Commission to come forward with a legislative proposal containing the necessary amendments to the ETS Directive with a view to increasing the transparency of the scheme, as well as strengthening and broadening its scope.[163] As part of a comprehensive package launched on 23 January 2008, the European Commission therefore proposed an extension of the EU ETS to include all greenhouse gases and all major industrial emitters, and an overall reduction in emissions under the EU ETS of 21 % by 2020 compared with 2005. From the beginning of the new regime in 2013 quotas will be auctioned

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[159] Nations, States, Provinces Announce Carbon Markets Partnership to Reduce Global Warming, International Carbon Action Partnership, 29 October 2007. Date of Access: 14 December 2007. http://www.icapcarbonaction.com/pr20071029.htm.

[160] Sustainable Energy Cities take the lead on climate change: The European Commission launches the Covenant of Mayors, European Commission, (Brussels), 29 January 2008. Date of Access: 5 June 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/103&format=HTML&aged=0&language=EN&guiLanguage=en.

[161] EU fails to curb emissions from transport: dramatic improvements and clear targets needed, European Environment Agency, (Brussels), 3 March 2008. Date of Access: 5 June 2008. http://www.eea.europa.eu/pressroom/newsreleases/eu-fails-to-curb-emissions-from-transport-dramatic-improvements-and-clear-targets-needed.

[162] Commission proposal to limit the CO2 emissions from cars to help fight climate change, reduce fuel costs and increase European competitiveness, European Commission, (Brussels), 19 December 2007. Date of access: 5 June 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1965&format=HTML&aged=0&language=EN&guiLanguage=en.

[163] Review of the European Union's Emissions Trading Scheme, European Commission, (Brussels), 4 July 2007. Date of Access: 14 December 2007. http://register.consilium.europa.eu/pdf/en/07/st11/st11429.en07.pdf.

to the power sector, and gradually other sectors will have to buy their emission allowances as well. The substantial revenues expected from the auctioning are to support innovation in climate friendly technologies as well as helping developing countries adapt to climate change. [164]

The same package moreover includes a directive proposal, which commits the EU as a whole to have 20 % of its energy consumption come from renewable energy sources by 2020. Apart from the electricity and biofuels sectors this proposal covers the heating and cooling sector, which so far has been excluded from existing EU renewable energy directives. In order to reach the overall 20 % goal, the Commission has assigned each member state different legally binding targets depending on a range of factors including their current starting point, and different levels of economic wealth. The exception is the use of biofuels in the transport sector, however, where each member state is required to meet the same 10 % target. As long as member states meet these targets, they are free to pursue them with the means they find most suitable to their national circumstances. One option given is by supporting renewable energy development in other member states as well as third countries.[165]

Apart from a revision of the ETS, and the introduction of new renewable energy targets, the package furthermore requires a reduction in emissions from sectors not covered by the EU ETS – such as buildings, transport, agriculture, and waste - of 10 % by 2020 compared with 2005 levels. Again this goal is to be reached through individual targets for each member state. Combined, these and other planned policies are estimated to allow EU15 countries to meet, and perhaps even exceed, their combined 2012 Kyoto target of reducing GHG emissions to 8 % below 1990 levels.[166]

Ambitious binding targets backed by internal legislation, funding and international actions means the EU is assessed to be in full compliance with its commitment relating to the stabilization of GHG emissions.

Analyst: Lauge Skovgaard Poulsen

Addendum:

- On 18 June 2008, the EEA reported that the emissions inventory compiled by the European Environment Agency for 2006, the latest

[164] Boosting Growth and Jobs by Meeting our Climate Change Commitments, European Commission, (Brussels), 23 January 2008. Date of Access: 28 January 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/80&format=HTML&aged=0&language=EN&guiLanguage=en.

[165] Memo on the Renewable Energy and Climate Change Package, European Commission, (Brussels), 23 January 2008. Date of Access: 5 June 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/33&format=HTML&aged=0&language=EN&guiLanguage=en.

[166] Greenhouse Gas Emission Trends and Projections in Europe 2007: Tracking Progress Towards Kyoto Targets, European Environmental Agency, (Copenhagen), 2007. Date of Access: 14 December 2007. http://reports.eea.europa.eu/eea_report_2007_5/en/Greenhouse_gas_emission_trends_and_projections_in_Europe_2007.pdf

year for which complete data is available, shows that EU-15 emissions dropped by 0.8% from 2005, taking emissions to 2.7% below their levels in the base year (1990 in most cases). This puts the EU-15 well on track to meeting its Kyoto Protocol target of keeping average emissions between 2008 and 2012 at least 8% below base year levels.[167]

European Union	Score
1B. Promote Less Emission-Intensive Energy Production	**+1**

The EU has registered full compliance with its commitment to promote less emission-intensive energy production. Among the main initiatives by the European Commission were: (i) the announcement of legally binding targets for 2020 per member state, both for carbon emission reduction and the share of renewables in the total energy production, (ii) the publication of a Strategic Energy Technology plan, (iii) the allocation of €470 million to the proposed public-private partnership 'Fuel Cells and Hydrogen Joint Technology Initiative', and (iv) a new legislative package on the unbundling of gas and electricity networks from suppliers, lowering barriers for new entrants (e.g. renewable energy companies). Moreover, the European Investment Bank (EIB) has increased its target for investment in renewable energy projects to €600-800 million per annum.

On 23 January 2008, the European Commission announced a broad package of climate measures, including the announcement that from 2013 the European power sector would face full auctioning of emission credits under a revision of the EU Emission Trading Scheme (EU ETS), as part of a goal of reducing emissions from sectors covered by the EU ETS by 21 % by 2020 compared with 2005 levels.[168] Moreover, the package of measures, which was adopted by the European Council at the Spring Summit 2008,[169] also included a proposal to establish legally binding national targets for the share of renewables in total energy consumption.[170] The latter aims at achieving the

[167] Climate change: Commission welcomes further progress towards meeting EU's Kyoto Protocol target, European Environment Agency, (Brussels), 18 June 2008. Date of Access: 1 July 2008.
http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/965&format=HTML&aged=0&language=EN&guiLanguage=en.

[168] Boosting Growth and Jobs by Meeting our Climate Change Commitments, European Commission, (Brussels), 23 January 2008. Date of Access: 28 January 2008.
http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/80&format=HTML&aged=0&language=EN&guiLanguage=en.

[169] EU leaders confirm Climate and Energy Package adoption timeline and key principles, Slovenian Presidency of the EU, (Brussels), 14 March 2008. Date of Access: 7 June 2008.
http://www.eu2008.si/en/News_and_Documents/Press_Releases/March/0314EC_pep.html.

[170] Boosting Growth and Jobs by Meeting our Climate Change Commitments, European Commission, (Brussels), 23 January 2008. Date of Access: 28 January 2008.
http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/80&format=HTML&aged=0&language=EN&guiLanguage=en.

European-wide target of 20 % of total consumption by 2020, previously established in the landmark Energy Policy for Europe (EPE).[171]

The EPE, issued by the European Commission on 10 January 2008, can be seen as the starting point for the EU's new 'integrated climate and energy policy'. The key objectives of the EPE are: (i) increasing security of energy supply; (ii) ensuring the competitiveness of European economies and the availability of affordable energy; (iii) promoting environmental sustainability and combating climate change. Regarding renewables, the so-called Renewable Energy Road Map[172] contains several binding targets, including that 20 % of overall EU energy consumption by 2020 should come from renewables.[173] As part of the EPE, the European Council has adopted an Energy Action Plan for the period 2007-2009,[174] which includes the aim of completing the EU's internal market for gas and electricity, and a European Strategic Energy Technology plan establishing new energy research on how to deploy low-carbon intensive technologies, including environmentally safe Carbon Capture and Sequestration.[175]

Regarding the securing of energy supplies, the European Commission put forward a 'third package' of legislative proposals for completion of an internal energy market.[176] Announced on 19 September 2007, one of its main objectives is unbundling, or separating the operation of electricity and gas transmission networks from supply and generation activities. The European Commission expects that unbundling will provide incentives for network operators and suppliers to invest in renewable energy, and to diversify energy generation methods, in addition to giving smaller companies (e.g. ones that invest in renewable energy) access to the networks and thus the energy market.[177] In a speech at the EU Energy Law Conference in Brussels, EU

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[171] An Energy Policy for Europe, European Commission, (Brussels), 10 January 2007. Date of Access: 27 December 2007. http://eur-lex.europa.eu/LexUriServ/site/en/com/2007/com2007_0001en01.pdf.
[172] Renewable Energy Road Map, European Commission, (Brussels), 10 January 2007. Date of Access: 27 December 2007. http://ec.europa.eu/energy/energy_policy/doc/03_renewable_energy_roadmap_en.pdf.
[173] Presidency Conclusions of the Brussels European Council, Council of the European Union, (Brussels), 9 March 2007. Date of Access: 27 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=DOC/07/1&format=HTML&aged=1&language=EN&guiLanguage=en.
[174] Presidency Conclusions of the Brussels European Council, Council of the European Union, (Brussels), 9 March 2007. Date of Access: 27 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=DOC/07/1&format=HTML&aged=1&language=EN&guiLanguage=en.
[175] Commission Welcomes Council's Support to Accelerate Energy Technologies for a Low-Carbon Future, European Commission, (Brussels), 5 December 2007. Date of Access: 14 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1838&format=HTML&aged=0&language=EN&guiLanguage=en.
[176] Energising Europe: A Real Market with Secure Supply, European Commission, (Brussels), 19 September 2007. Date of Access: 27 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1361&format=HTML&aged=0&language=EN&guiLanguage=en.
[177] Questions and Answers, European Commission, (Brussels), 19 September 2007. Date of Access: 27 December 2007.

Energy Commissioner Andris Piebalgs stated the "package is one of the key elements—or foundations—of the EU's efforts to tackle climate change. Without a competitive electricity market… the achievement of our objectives regarding renewable energy will never be met."[178] Initial reactions from the different stakeholders in response to the third energy package were broadly positive.[179] On 6 June 2008, under the pressure of France and Germany, a compromise was reached at the Energy Council, in which ownership unbundling is replaced by the requirement that transmission operator be sufficiently independent.[180]

On 22 November 2007, the European Commission put forward its Strategic Energy Technology plan (SET plan),[181] which was subsequently endorsed by the European Council on 28 February 2008.[182] Some of the key proposals in the SET plan are: (i) a new joint strategic planning, (ii) more effective implementation, and (iii) an increase in resources. Among its key components, the SET plan proposes to establish in early 2008 a Steering Group on Strategic Energy Technologies, composed of high level government representatives from member states, in order to be able to coordinate policies and programmes, make resources available, and monitor and review progress systematically.[183] The SET plan also proposes to establish an open-access information and knowledge management system. As part of this deliberative work, the European Commission will organise a European Energy Technology Summit in the first half of 2009, where representatives of industry, customer groups, European institutions, the financial community, and international partners will be brought together.

In addition, the European Commission proposes to launch, as part of the SET plan, separate initiatives in the areas of wind energy, solar energy, bio-energy, CO_2 capture, transport and storage (CCS), smart electricity grids, and

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http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/362&format=HTML&aged=0&language=EN&guiLanguage=en.

[178] Better Choice, Service and Prices in the New European Energy Market, Speech of Energy Commissioner Andris Piebalgs at the EU Energy Law Conference, (Brussels), 19 September 2007. Date of Access: 27 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/562&format=HTML&aged=0&language=EN&guiLanguage=en.

[179] Third Energy Package: Stakeholder Reactions Broadly Positive, EurActiv, 20 September 2007. Date of Access: 2 January 2007. http://www.euractiv.com/en/energy/third-energy-package-stakeholder-reactions-broadly-positive/article-166908.

[180] General agreement reached on third energy package, Press release of the Slovenian Presidency of the EU, (Brussels), 6 June 2008. Date of Access: 15 June 2008. http://www.eu2008.si/en/News_and_Documents/Press_Releases/June/0606MG_TTE.html?.

[181] A European Strategic Energy Technology Plan: Towards a low carbon future, European Commission, (Brussels), 22 November 2007. Date of Access: 27 December 2007. http://ec.europa.eu/energy/res/setplan/doc/com_2007/com_2007_0723_en.pdf.

[182] Council Conclusions on a European strategic energy technology plan, Council of the European Union (Brussels), 28 February 2008. Date of Access: 7 June 2008. http://www.eu2008.si/en/News_and_Documents/Council_Conclusions/February/0228_TTE1.pdf.

[183] A European Strategic Energy Technology Plan: Towards a low carbon future, European Commission, (Brussels), 22 November 2007. Date of Access: 27 December 2007. http://ec.europa.eu/energy/res/setplan/doc/com_2007/com_2007_0723_en.pdf.

sustainable nuclear fission.[184] Relative to technology, the EU also sees a clear role for clean coal technologies and CCS, which are addressed in the SET plan as part of a new initiative scheduled to be implemented in 2008.[185] On 23 January 2008, the European Commission issued a proposal to regulate CCS, to remove legal barriers in existing legislation.[186] Moreover, it is proposed that CCS will be credited as not emitted under the Emissions Trading Scheme.[187]

In relation to energy sources, the European Commission launched the 'Fuel Cells and Hydrogen Joint Technology Initiative' on 10 October 2007.[188] As part of this initiative, which will take the form of a public-private partnership, it will provide up to €470 million funding for the period 2007-2013, to be matched by private industry. Apart from such initiatives, the European Commission proposes the creation of a European Energy Research Alliance, possibly as part of the new European Institute of Technology. With regards to new financing commitments, the European Commission has pledged to present a 'Communication on financing low carbon technologies' by the end of 2008. With regard to human resources, the SET plan proposes to boost training in the field of energy research through Marie Curie Actions of the Research Framework Programme.[189]

Among observers, the SET plan got a mixed reception. The European Renewable Energy Council (EREC) welcomed the SET plan, while noting that "the sector of heating and cooling is not addressed accordingly while it represents approximately half of the EU's final energy consumption", adding that the necessity of an integrated strategy to accommodate decentralised generation has also not been fully reflected in the SET plan.[190] Because of the European Commission's proposals on nuclear energy technologies and CCS, Greenpeace criticised the SET plan, with Frauke Thies, energy expert at Greenpeace European Unit saying, "under the umbrella of 'low-carbon' technologies, the plan fails to distinguish between the real solutions to the climate crisis, renewable energy and energy efficiency technologies, and

[184] A European Strategic Energy Technology Plan: Towards a low carbon future, European Commission, (Brussels), 22 November 2007. Date of Access: 27 December 2007. http://ec.europa.eu/energy/res/setplan/doc/com_2007/com_2007_0723_en.pdf.
[185] A European Strategic Energy Technology Plan: Towards a low carbon future, European Commission, (Brussels), 22 November 2007. Date of Access: 27 December 2007. http://ec.europa.eu/energy/res/setplan/doc/com_2007/com_2007_0723_en.pdf.
[186] Proposal for a Directive on the geological storage of carbon dioxide, European Commission, (Brussels), 23 January 2008. Date of Access: 7 June 2008. http://ec.europa.eu/environment/climat/ccs/pdf/com_2008_18.pdf.
[187] Supporting Early Demonstration of Sustainable Power Generation from Fossil Fuels, European Commission, (Brussels), 23 January 2008. Date of Access: 7 June 2008. http://ec.europa.eu/energy/climate_actions/doc/2008_co2_comm_en.pdf.
[188] The Fuel Cells and Hydrogen Joint Technology Initiative, European Commission, (Brussels), 10 October 2007. Date of Access: 31 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/404.
[189] Press release on the Strategic Energy Technology Plan, European Renewable Energy Council, (Brussels), 22 November 2007. Date of Access: 2 January 2007. http://www.erec.org/fileadmin/erec_docs/Documents/Press_Releases/Press_release_Strategic_Energy_Technology_Plan.pdf.
[190] Press release on the Strategic Energy Technology Plan, European Renewable Energy Council, (Brussels), 22 November 2007. Date of Access: 2 January 2007. http://www.erec.org/fileadmin/erec_docs/Documents/Press_Releases/Press_release_Strategic_Energy_Technology_Plan.pdf.

expensive technologies that either bear an unacceptable environmental cost, like nuclear energy, or that are mere distractions, like carbon capture and storage".[191]

In conclusion, the EU advanced several initiatives to promote less emission-intensive energy production, within a broader strategic framework to transform the region into a low-carbon economy. The plans did not only launch separate initiatives that individually contribute to lowering emissions, but these were part of a broader strategic effort to restructure energy markets. As a result of these policy actions, the European Union is awarded a score of +1 for this commitment.

Analyst: Fonger Ypma

Addendum:

- According to a report on 19 June 2008, the European Union's biofuels strategy faces opposition from Europe's top business lobby. The latter has reinforced calls on the European Union to reconsider its target for the use of biofuels which are increasingly blamed for pushing up food prices globally.[192]

European Union	**Score**
1C. Promote Less Emission-Intensive Energy Consumption	**+1**

The European Union's commitment to promote less emission-intensive energy consumption must be seen in the broader picture of the EU's decision to cut its energy consumption by 20 % by 2020[193] as part of the 2006 Action Plan for Energy Efficiency.[194] At that time, the EU set out 75 specific actions in ten priority areas to be implemented over a period of six years.[195] With the support of the Council of Ministers, the second half of 2007 saw the focusing of EU action on some very specific areas, such as efficiency improvements in

[191] (un)-Strategic Energy Technology Plan, Greenpeace, 22 November 2007. Date of Access: 2 January 2007. http://www.greenpeace.org/eu-unit/press-centre/press-releases2/EU-Strategic-Energy-Plan-071122.
[192] European Business Urges EU to Review Biofuels Policy, Reuters, (Belgium), 19 June 2008. 2 July 2008. http://www.planetark.com/dailynewsstory.cfm?newsid=48872&newsdate=19-Jun-2008.
[193] Saving 20 % by 2020, European Commission, (Brussels), October 2006. Date of Access: 4 January 2008.
http://ec.europa.eu/energy/action_plan_energy_efficiency/doc/memo_en.pdf.
[194] Action Plan for Energy Efficiency, European Commission, (Brussels), 19 October 2006. Date of Access: 4 January 2008.
http://ec.europa.eu/energy/action_plan_energy_efficiency/doc/com_2006_0545_en.pdf.
[195] Energy Efficiency: The EU's Action Plan, Euractiv, 31 August 2007. Date of Access: 4 January 2008. http://www.euractiv.com/en/energy/energy-efficiency-eu-action-plan/article-143199.

home appliances and buildings.[196] In addition, the EU proposed an Environmental Compliance Assistance Programme aimed at assisting small and medium-sized companies in implementing European environmental legislation.[197]

In June 2007, the European Parliament adopted a new version of the regulations on the Energy Star programme, making it the first time European Parliament, the Council of Ministers, and the European Commission agreed that certain energy efficiency criteria are needed as binding in public procurement. The Energy Star programme is a voluntary energy-labelling programme for office equipment, which, through a logo applied on complying products, helps consumers to identify products that consume less energy.[198] The European Parliament's regulation requires member states to apply "demanding energy efficiency criteria in the public procurement of office equipment".[199] On 17 December 2007, the European Council adopted new regulations for implementing the EU-US Energy Star programme requiring EU institutions and central Member State government authorities to use energy efficiency criteria no less demanding than those defined in the Energy Star programme, when purchasing office equipment.[200] This was the first time when both the Parliament and the Council decided to make certain energy criteria mandatory in public procurement of office electrical appliances.[201]

On 15 January 2008, the Energy Star efficiency criteria were included in the Regulation (EC) No 106/2008 of the European Parliament and of the Council on a Community energy-efficiency labelling programme for office equipment. Although the document still stipulates a voluntary participation in the Energy Star programme, products that are covered by this regulation placed on the Community market "may be tested by the Commission or Member States in order to verify their compliance to this Regulation."[202] The document also sets

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[196] EU Gets Mixed Scores on Energy Efficiency. Euractiv, 7 December 2007. Date of Access: 4 January 2008. http://www.euractiv.com/en/sustainability/eu-gets-mixed-scores-energy-efficiency/article-168951.

[197] Commission to Help Small and Medium Sized Companies Become Greener, European Commission, (Brussels), 8 October 2007. Date of Access: 14 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1457&format=HTML&aged=0&language=EN&guiLanguage=en.

[198] Office Equipment: the Energy Star Programme, European Commission, (Brussels), 19 December 2007. Date of Access: 4 January 2008. http://ec.europa.eu/energy/demand/legislation/energy_star_programme_en.htm.

[199] Commissioner Piebalgs Welcomes More Stringent Energy Efficiency Standards in Public Procurement, European Commission, (Brussels), 10 July 2007. Date of Access: 4 January 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1056&format=HTML&aged=0&language=EN&guiLanguage=en.

[200] Commissioner Piebalgs welcomes adoption of the new Energy Star programme, EU press release IP/07/1943, 17 December 2007. Date of Access: 22 February 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1943&format=HTML&aged=0&language=EN&guiLanguage=en.

[201] EU-green lights new Energy Star programme, Public Technology, 18 December 2008. Date of Access: 13 June 2008. http://www.publictechnology.net/modules.php?op=modload&name=News&file=article&sid=13350.

[202] Regulation (EC) No 106/2008 of the European Parliament an of the Council on a Community energy-efficiency labelling programe for office equipment, (Brussels), 15 January

as a priority the promotion of energy-efficiency criteria by requiring that all "public supply contracts and public service contracts shall (...) specify energy-efficiency requirements" as they are set in the Energy Star programme.[203]

In the area of consumer products, the EU has begun a consultation process with a view to revising the Energy Labelling Directive later in 2008. However, most policy actions have taken the form of expert deliberations. On 22 June 2007, the Consultation Forum for the Eco-Design of Energy Using Products held its first meeting to discuss public street lighting, the possibilities of reducing the energy consumption through better assessment of lighting mechanisms, and identifying the of most inefficient types.[204] Based on Directive 2005/32/EC (article 18),[205] the main task of the group of experts is to contribute in particular to the definition and review of the implementing measures, to monitor efficiency of the established market surveillance mechanisms, and to assess voluntary agreements and other self-regulatory measures taken in the context of the Directive.[206] Later meetings, held on 19 October[207] and 18 December 2007,[208] established a proposal for new eco-design requirements for standby and off-mode electric power consumption of electrical and electronic household and office equipment, and eco-design requirements for fluorescent lamps and other office lighting. These meetings have been completed by additional consultations focusing on eco-design requirements for external power supplies and Simple Digital TV Converters[209]

2008. Date of Access: 13 June 2008. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:039:0001:0007:EN:PDF.

[203] Regulation (EC) No 106/2008 of the European Parliament and of the Council on a Community energy-efficiency labelling programme for office equipment, (Brussels), 15 January 2008. Date of Access: 13 June 2008. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:039:0001:0007:EN:PDF.

[204] Working Document on Possible Ecodesign Requirements for Public Street Lighting, Consultation Forum for the Eco-Design of Energy Using Products, (Brussels), 22 June 2007. Date of Access: 4 January 2008. http://ec.europa.eu/energy/demand/legislation/doc/2007_06_22_working_document.pdf.

[205] Directive 2005/32/EC, European Commission, (Brussels), 6 July 2005. Date of Access: 4 January 2008. http://ec.europa.eu/energy/demand/legislation/doc/2005_07_06_directive_ecodesign.pdf.

[206] Eco-Design of Energy Using Products, European Commission, (Brussels), 20 December 2007. Date of Access: 4 January 2008. http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm.

[207] Working Document on Possible Ecodesign Requirements for Standby and Off-Mode Electric Power Consumption of Electrical and Electronic Household and Office Equipment, Consultation Forum for the Eco-Design of Energy Using Products, (Brussels), 19 October 2007. Date of Access: 4 January 2008. http://ec.europa.eu/energy/demand/legislation/doc/2007_10_19_working_document_standby_offmode.pdf.

[208] Working Document on Possible Ecodesign Requirements for Fluorescent Lamps without Integrated Ballast, for Ballasts and Luminaires used with these Lamps, and on the Conditions for the Indication of Suitability of Lighting Products for Office Lighting, Consultation Forum for the Eco-Design of Energy Using Products, (Brussels), 18 December 2007. Date of Access: 4 January 2008. http://ec.europa.eu/energy/demand/legislation/doc/2007_12_18_working_document_fluorescent_lighting.pdf.

[209] Fourth meeting of the Consultation Forum under Article 18 of the Ecodesign Directive, (Brussels), 22 February 2008. Date of Access: 13 June 2008. http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm#consultation_forum.

on 22 January 2008, for boilers and water heaters, on 29 February,[210] for general lighting equipment, on 28 March,[211] and for standalone glandless circulators, ventilator fans, electric motors, and electric pumps, on 27-29 May.[212]

While such meetings facilitate the inclusion of experts in the legislative process, the fact that heeding to their advice is voluntary undermines their effectiveness in bringing about real change. However, the frequency of the meetings proves the commitment of the Commission to the revision of the Energy Labelling Directive, reinforced by the inclusion of direct references to the important energy savings effects that the proper energy labeling is already having in the Communication "20 20 by 2020. Europe's climate change opportunity". According to this document, "better labeling already means that 75 % of labeled products bought are in the 'A' class".[213]

In terms of lowering emissions associated with transport, the EU has taken several steps. On 28 September 2007, the EU called for cuts in aviation emissions in the 36th Assembly of the International Civil Aviation Organization.[214] On 19 December 2007, the European Commission made a revised proposal to the Council of Ministers and the European Parliament on a new directive on the promotion of clean and energy-efficient road transport vehicles.[215] The proposal is intended to introduce efficiency criteria into public procurement of vehicles and transport services, and would reduce the average CO_2 emissions by 2012.

Another initiative was the Commission's proposal for legislation to reduce the average CO_2 emissions of new passenger cars.[216] This legislation has been described as a cornerstone of the EU's strategy to improve the fuel consumption of cars, and to ensure that no new car will exceed a level of 120 g

[210] Fifth meeting of the Consultation Forum under Article 18 of the Ecodesign Directive, (Brussels), 29 February 2008. Date of Access: 13 June 2008. http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm#consultation_forum.
[211] Sixth meeting of the Consultation Forum under Article 18 of the Ecodesign Directive, (Brussels), 28 March 2008. Date of Access: 13 June 2008. http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm#consultation_forum.
[212] Seventh meeting of the Consultation Forum under Article 18 of the Ecodesign Directive, (Brussels), 27-29 May 2008. Date of Access: 13 June 2008. http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm#consultation_forum.
[213] 20 20 by 2020. Europe's climate change opportunity, European Commission, (Brussels), 23 January 2008. Date of Access: 13 June 2008. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0030:FIN:EN:PDF.
[214] Europe Stands Firm on Ambitious Action to Cut Aviation Emissions, European Commission, (Brussels), 28 September 2007. Date of Access: 14 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1420&format=HTML&aged=0&language=EN&guiLanguage=en.
[215] Revised Proposal for a Directive on the Promotion of Clean and Energy-Efficient Road Transport Vehicles, European Commission, (Brussels), 19 December 2007. Date of Access: 4 January 2008. http://ec.europa.eu/transport/clean/promotion/doc/com_2007_0817_en.pdf.
[216] Setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO2 emissions from light-duty vehicles, European Commission, (Brussels), 19 December 2007. Date of Access: 13 June 2008. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0856:FIN:EN:PDF.

CO_2/km.[217] Other stipulations require car manufacturers to produce new vehicles complying with these requirements. In case of a breach in meeting the target, an excess emissions premium will be imposed.[218]
When implemented, the legislation will place the EU among the world leaders of fuel-efficient cars, and will translate into a 19 % reduction of CO_2 emissions within the EU.[219] As this has just been submitted for revision, further reactions from the other EU institutions are expected.

In 2008, the European Commission has made other advancements in the field of promoting less emission-intensive energy consumption by initiating consultations on the energy labeling of domestic appliances in order to revise the Energy Framework Directive 1992/75/EEC.[220] Stakeholder consultations were also initiated in order to recast the Energy Performance of Buildings Directive, and address the problematic that the buildings sector is currently responsible for about 40 % of final energy consumption in the EU.[221]

This intense activity in the field of stakeholder and public consultations on domestic appliances, energy labeling, and vehicle energy consumption suggests that the next period will see the development of new modified Directives, which will reach and surpass the commitment requirements set up at the G8 Heiligendamm Summit. The road towards this new set of regulations has been opened by the energy-efficiency labeling programme for office equipment and the documents on the public procurement of vehicles and the transport services currently under revision by the other European institutions. For these advancements, the EU receives a score of full compliance with this commitment.

Analyst: Paula Ganga

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[217] Reducing CO2 emissions from light-duty vehicles, European Commission, (Brussels), 30 April 2004. Date of Access: 13 June 2008.
http://ec.europa.eu/environment/air/transport/co2/co2_home.htm.
[218] Reducing CO2 emissions from light-duty vehicles, European Commission, (Brussels), 30 April 2004. Date of Access: 13 June 2008.
http://ec.europa.eu/environment/air/transport/co2/co2_home.htm.
[219] Commission Proposal to Limit the CO2 Emissions From Cars to Help Fight Climate Change, Reduce Fuel Costs and Increase European Competitiveness, European Commission, (Brussels), 19 December 2007. Date of Access: 3 January 2008.
http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1965&format=HTML&aged=0&language=EN&guiLanguage=en.
[220] Consultation on the revision of the Energy Labeling Directive 92/75/EEC of 22 September 1992 on the indication by labeling and standard product information of the consumption of energy and other resources by household appliances, European Commission, (Brussels), 6 February 2008. Date of Access: 13 June 2008.
http://ec.europa.eu/energy/demand/legislation/doc/2008_02_22/2008_consultation_energy_labelling_document_en.pdf.
[221] Background Information Paper for the Public Consultation on the Recasting of the Energy Performance of Buildings Directive (EPBD) (2002/91/EC), European Commission, (Brussels), 5 May 2008. Date of Access: 13 June 2008.
http://ec.europa.eu/energy/demand/consultations/doc/2008_public_consultation_buildings_background_en.pdf.

European Union	Score
1D. Support for Climate Adaptation in DCs	**+1**

Since the Heiligendamm Summit in June 2007, the EU has provided support for climate adaptation, both within the EU, and in developing countries. The European Commission proposed the establishment of a 'Global Climate Change Alliance' between the EU and developing countries deemed particularly vulnerable to the impacts of climate change, and has earmarked €50 million for this Alliance. Adaptation also featured prominently in the 'Africa-EU Partnership on Climate Change' for 2008-2013, agreed at the EU-Africa Summit in December 2007, and in the conclusions of the EU-Latin American and Caribbean Summit in May 2008. On the basis of these activities, the EU achieved a compliance score of +1.

On 29 June 2007, the European Commission articulated the EU's broad policy for climate adaptation in a Green Paper entitled 'Adapting to climate change in Europe – options for EU action.'[222] This document represents the European Commission's first comprehensive statement on adaptation, and launched a public consultation process over the following months.[223] While primarily focused on intra-EU adaptation, the Green Paper identifies 'integrating adaptation into EU external actions' as one of its four pillars. On adaptation in developing countries in particular, the Green Paper states that "the EU's experiences with adaptation measures should be shared with developing countries' governments," and that "adaptation should also be integrated into strategies for poverty reduction…as well as development planning and budgeting".[224] The European Commission plans to adopt a White Paper on the subject of adaptation in autumn 2008, and held a Stakeholder Consultation in Brussels in May 2008, which will contribute to this process.[225]

On 20 September 2007, the European Commission published a Communication to the Council of Ministers and the European Parliament on "Building a Global Climate Change Alliance between the European Union and poor developing countries most vulnerable to climate change".[226] This Alliance will have five priority areas, two of which relate to adaptation. The

[222] Adapting to Climate Change in Europe – Options for EU Action, European Commission, (Brussels), 29 June 2007. Date of Access: 4 January 2008. http://eur-lex.europa.eu/LexUriServ/site/en/com/2007/com2007_0354en01.pdf.
[223] Adapting to Climate Change in Europe - Options for EU Action: Launching a Public Debate on 3rd July 2007, Charlemagne Building, Brussels, European Commission, (Brussels), 3 July 2007. Date of Access: 4 January 2008. http://ec.europa.eu/environment/climat/adaptation/2007_07_03_conf/index_en.htm.
[224] Adapting to Climate Change in Europe – Options for EU Action, European Commission, (Brussels), 29 June 2007. Date of Access: 4 January 2008. http://eur-lex.europa.eu/LexUriServ/site/en/com/2007/com2007_0354en01.pdf.
[225] Stakeholder Consultation in Preparation of a White Paper on Adaptation to Climate Change, European Commission, (Brussels), 16 May 2008. Date of Access: 16 June 2008. http://ec.europa.eu/environment/climat/adaptation/stakeholder_consultation.htm.
[226] Communication from the Commission to the Council and the European Parliament: Building a Global Climate Change Alliance between the European Union and Poor Developing Countries Most Vulnerable to Climate Change, European Commission, (Brussels), 18 September 2007. Date of Access: 4 January 2008. http://ec.europa.eu/development/ICenter/repository/env_cc_GACC_com2007_0540en.pdf.

first of these includes proposals to support the development and/or implementation of adaptation action plans in Least Developed Countries and Small Island Developing States (SIDS), as well as in vulnerable countries other than LDCs, and to finance pilot adaptation projects. In addition, it advocates support for international collaborative research on the impacts of climate change in developing countries and regions, as well as on the identification and design of innovative adaptation solutions.[227] The second priority area aims to improve the preparedness of developing countries and societies for climate-related natural disasters, and to mitigate risks and limit their impact, through improving climate monitoring, forecasting, and information systems, and strengthening regional capacity for climate-related disaster risk reduction.[228] The European Commission has already earmarked €50 million for the Global Climate Change Alliance,[229] and the proposal has been welcomed by the Council of Ministers.[230]

On 9 December 2007, heads of state or governments of the EU and Africa agreed a 'Joint EU-Africa Strategy'.[231] Under this Strategy, an Action Plan for 2008-2010 outlines eight "partnership areas", one of which is an "Africa-EU Partnership on Climate Change".[232] This Partnership will have two priority actions. The first of these includes the setting up of national/regional adaptation plans to climate change, and supporting the implementation of the "African Climate Information for Development in Africa" initiative; the launching of risk-awareness and preparedness campaigns on climate-related natural disasters; the strengthening of climate-monitoring and forecasting capacities; the implementation of adaptation strategies, particularly in relation to water, energy, health, environment, agricultural and food security issues; and the promotion of climate observation, in particular for the African continent, and the enhancement of links to global climate observatory systems. The second priority area is cooperation to address land degradation

[227] Communication from the Commission to the Council and the European Parliament: Building a Global Climate Change Alliance between the European Union and Poor Developing Countries Most Vulnerable to Climate Change, European Commission, (Brussels), 18 September 2007. Date of Access: 4 January 2008. http://ec.europa.eu/development/ICenter/repository/env_cc_GACC_com2007_0540en.pdf.
[228] Communication from the Commission to the Council and the European Parliament: Building a Global Climate Change Alliance between the European Union and Poor Developing Countries Most Vulnerable to Climate Change, European Commission, (Brussels), 18 September 2007. Date of Access: 4 January 2008. http://ec.europa.eu/development/ICenter/repository/env_cc_GACC_com2007_0540en.pdf.
[229] Intervention areas: Environment, Sustainable Management of Natural Resources, European Commission – DG Development, (Brussels). Date of Access: 4 January 2008. http://ec.europa.eu/development/Policies/9Interventionareas/Environment/climate/climate_en.cfm.
[230] Adoption of Council Conclusions on a Global Climate Change Alliance between the European Union and Poor Developing Countries Most Vulnerable to Climate Change, Council of the European Union, (Brussels), 14 November 2007. Date of Access: 4 January 2008. http://register.consilium.europa.eu/pdf/en/07/st15/st15078.en07.pdf.
[231] The Africa-EU Strategic Partnership: A Joint Africa-EU Strategy, EU-Africa Summit, (Lisbon), 7-9 December 2007. Date of Access: 4 January 2008. http://ec.europa.eu/development/icenter/repository/EAS2007_joint_strategy_en.pdf.
[232] Africa-EU Partnership on Climate Change, EU-Africa Summit, (Lisbon), 7-9 December 2007. Date of Access: 4 January 2008. http://ec.europa.eu/development/icenter/repository/EAS2007_action_plan_climate_change_en.pdf.

and increasing aridity, including the "Green Wall for the Sahara Initiative".[233] Thus, both priority areas of the Partnership deal with the issue of adaptation. Also at the summit, the European Commission signed country strategy papers of the 10th European Development Fund with 31 Sub-Saharan Africa countries, amounting to €8 million between 2008 and 2013.[234] The priorities of this fund mirror the eight partnerships of the Joint EU-Africa Strategy just discussed, with one being devoted to climate change.

At the fifth EU-Latin American and Caribbean (LAC) Summit in Lima, Peru on 16-17 May 2008, heads of state or governments from EU and LAC states agreed to enhance cooperation in the area of adaptation.[235] This includes enhancing awareness of, and preparedness for natural disasters through research and monitoring, exchange of experiences and the timely dissemination of best practices, and the development of local capabilities.[236] Another aspect of adaptation that was emphasised in the Summit declaration was adaptation to the impact of climate change on biodiversity in Latin American and Caribbean rural, coastal, and mountain populations.[237] Capacity for both adaptation and mitigation in Latin American and Caribbean countries is also to be enhanced through cooperation programmes on climate change impact research, identification of vulnerabilities, mobilisation of financial resources, and training and response strategies assistance.[238]

In conclusion, the EU, and in particular the European Commission, has advanced a number of new initiatives during the compliance period in the area of support for climate adaptation in developing countries. These include the publication of a Green Paper on adaptation, concrete proposals for a Global Climate Change Alliance which would deal with, *inter alia*, climate adaptation, an "Africa-EU Partnership on Climate Change" containing a significant adaptation component, and the agreement of cooperation measures on adaptation between EU and Latin American and Caribbean states. Significant funding from the EU, furthermore, backs these latter two initiatives. On this basis, the EU achieves a score of +1 for this commitment.

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[233] Africa-EU Partnership on Climate Change, EU-Africa Summit, (Lisbon), 7-9 December 2007. Date of Access: 4 January 2008.
http://ec.europa.eu/development/icenter/repository/EAS2007_action_plan_climate_change_en.pdf.

[234] €8 billion: A Great Step Forward for Development and Ambitious Partnerships for 31 States in Sub-Saharan Africa and the Commission, European Commission, (Brussels), 9 December 2007. Date of Access: 4 January 2008.
http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1880&format=HTML&aged=0&language=EN&guiLanguage=en.

[235] Lima Declaration: 'Addressing Our Peoples' Priorities Together', EU-LAC Summit, (Lima), 16-17 May 2008. Date of Access: 16 June 2008.
http://ec.europa.eu/external_relations/lac/docs/declaration_en.pdf.

[236] Lima Declaration: 'Addressing Our Peoples' Priorities Together', EU-LAC Summit, (Lima), 16-17 May 2008. Date of Access: 16 June 2008.
http://ec.europa.eu/external_relations/lac/docs/declaration_en.pdf.

[237] Lima Declaration: 'Addressing Our Peoples' Priorities Together', EU-LAC Summit, (Lima), 16-17 May 2008. Date of Access: 16 June 2008.
http://ec.europa.eu/external_relations/lac/docs/declaration_en.pdf.

[238] Lima Declaration: 'Addressing Our Peoples' Priorities Together', EU-LAC Summit, (Lima), 16-17 May 2008. Date of Access: 16 June 2008.
http://ec.europa.eu/external_relations/lac/docs/declaration_en.pdf.

Analyst: Diarmuid Torney

European Union	Score

1E. Reducing GHG Emissions by Curbing Deforestation +1

The EU has long committed itself to curbing deforestation with the elaboration of one of the "most comprehensive, and ambitious"[239] bodies of legislation on Forest Law Enforcement and Trade (FLEGT). Although the main focus of the EU's forestry policy in developing countries is reducing illegal logging, developments of the past year have added a new dimension to this through the EU's actions in linking the entire environmental problem of deforestation to the issue of climate change.[240] Steps, such as the further advancement of the Voluntary Partnership Agreements (VPAs) on illegal logging with developing countries, the EU-Brazil Summit, and the EU's strongly positive contribution to the Bali climate conference represent clear commitments to the issue of limiting GHG emissions through curbing deforestation, which explain the positive evaluation the EU receives in this report.

The breakthrough law on Forest Trade has been in place since 2006 with an initial period of project finance from 2007 to 2013.[241] The second half of 2007 brought an extension of international cooperation with developing countries to this regulation. Ghana, Indonesia, and Malaysia have already started negotiation processes, but it was Cameroon that first moved the partnership further.[242] On 28 September 2007, Cameroon officially joined the VPA, and joined the EU in agreeing to stop the trade of illegal timber from this African country in the European market.[243] In January 2008, the first project under the VPA and FLEGT was initiated, which was designed to help local

[239] Chatham House, EU FLEGT, (London), 2 January 2008. Date of Access: 3 January 2008. http://www.illegal-logging.info/sub_approach.php?approach_id=26&subApproach_id=119&category_id=.
[240] The EU's Contribution to Shaping A Future Global Climate Change Regime, the European Commission, (Brussels), 27 November 2007. Date of Access: 3 January 2008. http://ec.europa.eu/environment/climat/future_action.htm.
[241] Thematic Programme on Environment and Sustainable Management of Natural Resources, Including Energy, European Commission, (Brussels), 23 March 2007. Date of Access: 3 January 2008. http://ec.europa.eu/development/policies/9interventionareas/environment/funding/enrtp/enrtp_en.cfm.
[242] FLEGT Voluntary Partnership Agreements (VPAs), European Commission, (Brussels), 9 November 2007. Date of Access: 3 January 2008. http://ec.europa.eu/development/Policies/9Interventionareas/Environment/forest/Flegt_VPAs_en.cfm.
[243] Déclaration Commune du Cameroun et de la Commission Européenne sur la négociation d'un APV(Accord de Partenariat Volotaire) de l'initiative FLEGT, European Commission, (Brussels), 9 October 2007. Date of Access: 3 January 2008. http://ec.europa.eu/development/ICenter/Pdf/Environment/forests/VPAs/Cameroon_VPAs/Rapport_Lancement_Negociations_APV_FLEGT.pdf.

communities to map their key assets and sensitive resources in the forest with the help of Helvetas technology.[244]

Ghana concluded its negotiations in 2008,[245] and when the VPA becomes operational it will provide: (i) standards to ensure that timber originates from legal sources, (ii) a system of verification, and (iii) institutional arrangements for the issuance of certificates of legality.[246] In Indonesia and Malaysia negotiations are not yet finalized, but other countries are already looking to initiate negotiations of VPAs with the EU, such as Gabon, Liberia, Ecuador, Sierra Leone, and Guyana.[247]

Curbing deforestation also featured high on the EU's agenda at COP-13 in Bali.[248] Of all the proposals the EU made, the issue of deforestation was among those successfully included on the Bali road map alongside a programme of clean technology transfers to developing countries, in spite of continuing opposition from the US and other nations including Japan.[249]

On 4 July 2007, the EU organized the first-ever EU-Brazil Summit to discuss the prevention of deforestation.[250] The importance of Brazil in the domain of deforestation is crucial, as this country is home to the Amazon rainforest, which is being threatened by deforestation for agriculture and energy purposes.[251] The two issues of deforestation and biofuel energy were among the most important issues discussed by the leaders present at the summit, with the final joint statement recalling the need for further action in light of commitments already made during the German G8 Presidency and the Summit at Heiligendamm on 8 June 2007.[252] However, this political statement was severely criticized by the Greens/European Free Alliance

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[244] Interactive Forest Mapping Launched for Communities in Cameroon , Chatham House, (London), 30 January 2008. Date of Access: 10 June 2008. http://www.illegal-logging.info/item_single.php?item=news&item_id=2556&approach_id=26.
[245] Ghana: Government-EU Negotiation On Timber Trade Ends, Chatham House, (London), 16 May 2008. Date of Access: 10 June 2008. http://www.illegal-logging.info/item_single.php?item=news&item_id=2730&approach_id=18.
[246] Ghana and EU poised to formalize VPA, Chatham House, (London), 15 May 2008. Date of Access: 10 June 2008. http://www.illegal-logging.info/item_single.php?item=news&item_id=2705&approach_id=18.
[247] EU Action Plan for Forest Law Enforcement, Governance and Trade, Chatham House, (London), January 2008. Date of Access: 10 June 2008. http://www.illegal-logging.info/presentations/17-180108/falconer.pdf.
[248] Interview with José Manuel Barroso, Euractiv, 4 December 2007. Date of Access: 3 January 2008. http://www.euractiv.com/en/bali/barroso-climate-change-energy-top-eu-political-agenda/article-168854.
[249] Bali Progress on Forests and Tech Transfers Despite EU-US Row, Euractiv, 14 December 2007. Date of Access: 3 January 2008. http://www.euractiv.com/en/climate-change/bali-progress-forests-tech-transfers-despite-eu-us-row/article-169133.
[250] José Sócrates Accomplishes First EU-Brazil summit, Portuguese EU Presidency, (Lisbon), 3 July 2007. Date of Access: 3 January 2008. http://www.eu2007.pt/UE/vEN/Noticias_Documentos/20070203LULA2.htm.
[251] EU, Brazil Join in Strategic Partnership, Euractiv, 5 July 2007. Date of Access: 3 January 2008. http://www.euractiv.com/en/trade/eu-brazil-join-strategic-partnership/article-165263.
[252] Joint Statement, Portuguese EU Presidency, (Lisbon), 4 July 2007. Date of Access: 3 January 2008. http://www.eu2007.pt/UE/vEN/Noticias_Documentos/20070704BRSUM.htm.

(EFA), who argued that biofuels production can have "disastrous consequences for the environment and food security", and does not address the problem of illegal logging and agro-industrial destruction.[253] This point of view is supported by the fact that during the summit, Portuguese oil company Galp Energia signed an agreement with Brazil's Petrobras to produce 600,000 tonnes of vegetable oils in Brazil, representing an incentive to continue on the road of deforestation for energy purposes, and not the contrary.[254]

This perspective has also been supported by the fact that the European target of attaining the 10 % increase in renewable energy in the next 12 years will probably be reached by increasing the volume of energy from biomass.[255] At the 11-14 April 2008 informal Council meeting dedicated entirely to environment and the forests, the Slovenian EU Presidency acknowledged that 'there are indications that in certain regions the increased use of wood may negatively impact on biodiversity'.[256] This situation will put additional pressure on forest exploitation, but experts contend that a management approach should be set, in order to take into consideration the wide range of services provided by forests.[257] The European Commissioner for Environment, Stavros Dimas, also stressed the importance of stopping the illegal logging by effective European legislation promising new measures to tackle this problem[258] after critiques from NGOs such as the World Wildlife Fund [259] and Friends of the Earth.[260]

The actions and initiatives, as well as the awareness in the field of forest protection, reinforce the role that the EU has in international negotiations as a promoter of forestry. Bilateral initiatives that confront illegal logging practices, combined with advocacy in international negotiations, forms the

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[253] EU-Brazil Summit: Environmental and Social Concerns Sidelined in Pursuit of Short-Term Economic Gain, Monica Frassoni, (Brussels), 4 July 2007. Date of Access: 3 January 2008. http://www.greens-efa.org/cms/pressreleases/dok/189/189749.eubrazil_summit@en.htm.
[254] Brazil Invited to Become Special EU Partner, Reuters, 4 July 2007. Date of Access: 3 January 2008. http://www.alertnet.org/thenews/newsdesk/L0442894.htm.
[255] Ministers to discuss role of forests in energy scramble, Euractiv, (Brussels), 11 April 2008. Date of Access: 10 June 2008. http://www.euractiv.com/en/environment/ministers-discuss-role-forests-energy-scramble/article-171565.
[256] Forest Biodiversity as a Challenge and Opportunity for Climate Change Adaptation and Mitigation, Slovenian EU Presidency, Ljubljana, 11-13 April 2008, Date of Access: 10 June 2008.
http://www.eu2008.si/en/News_and_Documents/Background_Information/April/0411ENV_background.pdf.
[257] Sustainable use of forests is a must for halting biodiversity loss, European Environment Agency, (Copenhagen), 14 April 2008. Date of Access: 10 June 2008.
http://www.eea.europa.eu/highlights/sustainable-use-of-forests-is-a-must-for-halting-biodiversity-loss.
[258] EU moves to combat illegal logging, Euractiv, (Brussels), 26 March 2008. Date of Access: 10 June 2008. http://www.euractiv.com/en/environment/eu-moves-combat-illegal-logging/article-171134.
[259] EU states failing on forest protection says WWF, Euractiv, (Brussels), 29 June 2007. Date of Access: 10 June 2008. http://www.euractiv.com/en/sustainability/eu-states-failing-forest-protection-wwf/article-163515.
[260] Building on forest destruction. Timber use in EU-financed building projects, Friends of the Earth, (Amsterdam), March 2008. Date of Access: 10 June 2008.
http://www.foeeurope.org/activities/forests/Building_on_forest_destruction_Mar08_EN.pdf.

basis for assigning the EU with an overall score of +1 for actions directed towards curbing deforestation.

Analyst: Paula Ganga

France

Background

Since the G8 Summit at Heiligendamm, France undertook a large scale consultation process -the *Grenelle Environnement*- that brought together an unprecedented number of public, private, and civil actors to discuss environmentally sustainable development in general, and climate change and energy related issues in specific. This forum has not only delivered several ambitious targets to reduce greenhouse gas (GHG) emissions, and enhance the efficiency of energy production and consumption. It has also entered a legislative process to develop the *Grenelle* Law. Although the adoption of the law, which was scheduled for summer 2008, will most likely be delayed until autumn, Minister for Ecology, Sustainable Development and Planning, Jean Borloo has shown confidence about its final adoption, and already talks about the adoption of *Grenelle* II and *Grenelle* III Laws, which would complete the *Grenelle* I Law.[261]

The *Grenelle Environnement* has not only created an overarching framework process for climate change policy, but has spurred concrete advancements in other commitment areas. In this respect, France has set ambitious targets for the introduction of renewable sources of energy, and announced an investment plan to achieve these targets. To lower energy consumption, the government spelled out strategies to diversify transport opportunities away from road to rail, and enhance the energy efficiency of old and new buildings. Beyond its borders, France has continued to promote research, and allocated funds to aid developing countries to adapt to the impacts of climate change. Furthermore, it has advanced regulative measures, and devoted funding towards curbing deforestation. As France's entry into effective climate change policy has been relatively late compared to its European counterparts, its obvious efforts are particularly welcome. Nevertheless, especially with regards to domestic actions to mitigate climate change, France's compliance is still considered to be "work in progress."

Team Leader and Analyst: Jean-Benoit Fournier

France	Score
1A. Stabilise GHG Concentrations	**0**

[261] Le Conseil des Ministres adopte Grenelle 1, ENVIRO2B, (Paris), 12 June 2008. Date of Access: 16 June 2008. http://www.enviro2b.com/environnement-actualite-developpement-durable/15969/article.html.

France outlined its climate mitigation ambitions in the *Plan Climat* in 2004. This plan sets a tolerated global temperature rise of two degrees centigrade[262] and a global GHG concentration level of 565 ppm.[263] This places France below UNDP threshold levels[264] that consider a stabilization of GHG concentrations at 450 ppm as necessary to keep the global temperature rise at two degrees centigrade.[265] Nevertheless, the last Climate Change Inventory, published in December 2007, stresses, that even though France's implementation of the Kyoto Protocol started only on 1 January 2008, it is one of the few industrialised countries whose current GHG emissions are below its international commitments.[266] In other words, due to its reliance on nuclear energy for electricity generation, its GHG emissions were already 4 % below 1990 levels in 2006,[267] and currently lie 21 % below the European average.[268]

Still, on 25 October 2007, President Nicolas Sarkozy stated in his conclusions of the *Grenelle Environment Forum,* that it was France's ambition "to be in the vanguard and to set an example" and thus put the country "in the lead".[269] To demonstrate this political will, President Sarkozy announced in the same speech, that "carbon costs" would be taken into account in the preparation and planning of all major public projects.[270] Furthermore, he announced that he was willing to consider introducing a 'climate energy tax',[271] although he

[262] Plan Climat, Ministère de l'Ecologie et du Développement, (Paris), 20 September 2004. Date of Access: 7 January 2008. http://www.effet-de-serre.gouv.fr/images/documents/BAT-PLANCLIMAT04.pdf.
[263] Plan Climat, Ministère de l'Ecologie et du Développement, (Paris), 20 September 2004. Date of Access: 7 January 2008. http://www.effet-de-serre.gouv.fr/images/documents/BAT-PLANCLIMAT04.pdf.
[264] Plan Climat, Ministère de l'Ecologie et du Développement, (Paris), 20 September 2004. Date of Access: 7 January 2008. http://www.effet-de-serre.gouv.fr/images/documents/BAT-PLANCLIMAT04.pdf.
[265] 2007/2008 Human Development Report, UNDP, (Geneva), 27 November 2007. Date of Access: 8 January 2008. http://hdr.undp.org/en/reports/global/hdr2007-2008/.
[266] Mission Interministérielle de l'Effet de Serre, Dernier Inventaire National, Ministère de l'écologie, de l'énergie, du développement durable et de l'aménagement du territoire, (Paris), 2007. Date of Access: 30 May 2008. http://www.effet-de-serre.gouv.fr/dernier_inventaire_national_.
[267] Développement durable: la France se classe honorablement en Europe, Le Monde.fr, 12 June 2008. Date of Access: 12 June 2008. http://www.lemonde.fr/sciences-et-environnement/article/2008/06/12/developpement-durable-la-france-se-classe-honorablement-en-europe_1057038_3244.html#ens_id=1056532.
[268] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[269] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[270] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[271] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

stopped short of expressly committing to implementing such a tax.[272] Recognising that the ability of some companies to exclude the carbon price from goods would lead to unfair competition with businesses that are required to include the carbon price in their goods, he proposed that "within the next six months the European Union should debate the meaning of fair competition."[273]

Since these announcements, the *Grenelle Environnement* has entered its fourth phase that focuses on developing the actual implementation of the commitments arrived at between July and October 2007.[274] In this respect, Minister of Ecology and Sustainable Development and Planning, Jean-Louis Borloo, presented a new law proposal concerning the application of the *Grenelle Environnement* to the French Council of Ministers, on 12 June 2008,[275] and to the National Assembly on 24 June.[276] The proposal aims to quarter France's GHG emissions for the period between 1990 and 2050, in order to reach emissions levels below 140 million tons of CO_2.[277] Further, the proposal announces the application of a new "carbon neutral" growth model, which would incorporate the impact of emissions in the prices of goods and services.[278] Also, in response to concerns about industrial flight and unfair competition, voiced by Prime Minister François Fillon on 30 April 2008,[279] it suggests an adjustment mechanism for imports from countries reluctant to

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[272] Sarkozy puts France on green track, Angelique Chrisafis for the Guardian, (Paris), 26 October 2007. Date of Access: 24 January 2007. http://www.guardian.co.uk/france/story/0,,2199594,00.html.
[273] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[274] Public Campaign, Economies d'énérgie, faisons vite ça chauffe, Minist ère de l'écologie, de l'énergie, du développement durable et de l'aménagement du territoire, (Paris). June 2008. Date of Access: 12 June 2008. http://www.faisonsvite.fr/Nouvel-article.
[275] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[276] Discours de Jean-Louis Borloo: Projet de loi relatif à la responsabilité environnementale à l'Assemblée nationale - Séance du 24 juin 2008, Ministre d'État,Ministre de l'Écologie, de l'Energie, du Développement durable et de l'Aménagement du territoire, (Paris), 24 June 2008. Date of Access: 30 June 2008. http://www.developpement-durable.gouv.fr/article.php3?id_article=3379.
[277] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[278] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[279] Climate and Energy tackled at the meeting of the Interministerial Committee on Europe, French Government Portal, (Paris), 30 April 2008. Date of Access: 29 May 2008. http://www.premier-ministre.gouv.fr/en/information/latest_news_97/climate_energy_and_the_59915.html.

share their responsibilities towards climate change through environmental standards.[280] These developments are first concrete steps towards implementing France's rhetoric at the United Nations Climate Change Conference in Bali, in December 2007, at which Minister Borloo stressed the need for growth through "low carbon development".[281]

Without doubt, the *Grenelle* Law is a far reaching legislation that draws clearly and directly from the "social consensus" forged through the extensive consultations of the *Grenelle* process in 2007.[282] Yet, so far no clear financing mechanisms have been discussed. Without specifying the general budget of the project outlined by the law proposal, Minister Borloo argued that the investments would be financed by the savings the new policies would allow,[283] a proposal which has been rightly criticized for its vagueness.[284]
Even though France's climate policy remains in an early stage compared to other European countries,[285] the initiation of the legislative process towards the application of GHG reduction commitments opens up space for optimism. The initial national consultation process and the pronouncement of ambitious policies have laid the foundations for national climate actions, which have entered the legislative process with the general support of environmental non-governmental organizations.[286] Nevertheless, until the Grenelle Law has been passed and a budget been allocated, France scores a "work in progress."

Analyst: Ana-Francisca Ramirez

[280] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 11 June 2008. Date of Access: 12 June 2008.
http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[281] The Bali Conference, Prime Minister Governmental Portal, (Paris), 26 December 2007. Date of Access: 2 January 2008. http://www.premier-ministre.gouv.fr/en/information/latest_news_97/the_bali_conference_58804.html.
[282] Projet d'exposé des motifs relatif à la loi de programmation du Grenelle de l'environnement, dite loi Grenelle 1, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 7 May 2008. Date of Access: 10 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/spip.php?article902.
[283] Le financement du projet de loi sur l'environnement reste vague, Gaëlle Dupont, Le Monde, 11 June 2008. Date of Access: 12 June 2008.
http://www.lemonde.fr/sciences-et-environnement/article/2008/06/11/le-financement-du-projet-de-loi-sur-l-environnement-reste-vague_1040510_3244.html#ens_id=1056532.
[284] Le financement du projet de loi sur l'environnement reste vague, Gaëlle Dupont, Le Monde, 11 June 2008. Date of Access: 12 June 2008.
http://www.lemonde.fr/sciences-et-environnement/article/2008/06/11/le-financement-du-projet-de-loi-sur-l-environnement-reste-vague_1040510_3244.html#ens_id=1056532.
[285] La France ne réussira son «New Deal environnemental» qu'avec l'Europe, Jacques Barrot, European Transport Comissioner, (Paris), 29 October 2007. Date of Access: 25 January 2008.
http://www.lesechos.fr/info/energie/300214473.htm.
[286] Nicolas Hulot «La crise écologique réclame des mesures radicales au niveau européen», Interview of Nicolas Hulot by Gaëlle Dupont, Le Monde, 11 June 2008. Date of Access: 12 June 2008.
http://www.lemonde.fr/sciences-et-environnement/article/2008/06/11/nicolas-hulot-la-crise-ecologique-reclame-des-mesures-radicales-au-niveau europeen_1056529_3244.html#ens_id=1056532.

Addendum:

- On 16 June 2008, Environment Minister Jean Borloo, speaking at the Energy Council, announced that the French presidency will place absolute priority on climate and energy during its six month EU presidency.[287]

France	**Score**

1B. Promote Less Emission-Intensive Energy Production +1

Due to its dependency on nuclear power, France is in a different position than most European nations in terms of lowering the emission-intensity of domestic energy production. Nevertheless, the government has indicated, that it does not intend to use its comparatively low emissions levels as an excuse to withstand from addressing the problem of climate change.

Since June 2007, France has strongly reiterated its commitment to promote cleaner and renewable energy technologies. In the first phase of the *Grenelle Environnement*, which was concluded in October 2007, France spelled out specific measures to tackle climate change, including the promotion of less emission-intensive energy production.[288]

Following the *Grenelle Environnement,* the government announced more concrete renewable energy targets. It aims to raise domestic wind power generation capacity from 810 megawatts (MW) in 2006 to 25,000 MW by 2020, increase its photovoltaic capacity from 32.7 MW to 3,000 MW by 2020, and install 5 million solar thermal units on buildings (80 % of which would be residential homes), again by 2020.[289] In total, it aims to increase the renewable share of the country's total energy consumption from 6.7 % in 2004 to 20 % by 2020.[290] In the words of Jean-Michel Parroufe, from the French Environment and Energy Management Agency (ADEME), these objectives "mark a new era in the development of wind and solar power in France, and though they are ambitious, they can be achieved."[291]

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[287] French Presidency Heads for Knotty EU Climate Deal, Reuters, (Paris), 16 June 2008. Date of Access: 3 July 2008. http://www.planetark.com/dailynewsstory.cfm?newsid=48796&newsdate=16-Jun-2008.
[288] Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 17 September 2007. Date of Access: 31 December 2007. http://www.legrenelle-environnement.fr/grenelle-environnement/.
[289] France Sets Ambitious Renewable Energy Targets, Renewable Energy Access, 2 January 2008. Date of Access: 5 January 2008. http://www.renewableenergyaccess.com/rea/news/story?id=50971.
[290] France Sets Ambitious Renewable Energy Targets, Renewable Energy Access, 2 January 2008. Date of Access: 5 January 2008. http://www.renewableenergyaccess.com/rea/news/story?id=50971.
[291] France Sets Ambitious Renewable Energy Targets, Renewable Energy Access, 2 January 2008. Date of Access: 5 January 2008. http://www.renewableenergyaccess.com/rea/news/story?id=50971.

Just as the national nuclear programme was launched in 1974 to reduce energy dependence, President Sarkozy stated in his concluding speech of the *Grenelle Forum* in October 2007, that France would initiate a "renewable energy development plan" to address climate change.[292] In fact, he stated his ambition was to make France "the leader in renewables, over and above [...] the EU objective of 20 % of [its] energy consumption by 2020."[293] To meet this ambitious objective, he announced a plan to invest heavily in renewable energy, including an "earmark of €1 billion over a four-year period for the energies and the engines of the future, for biodiversity and for environmental health."[294] (The plan does not specify how this money will be allocated among the enunciated goals). To strike a balance between the promotion of nuclear energy innovation and renewable energy technologies, the government pledged to spend €1 on clean technologies and the prevention of environmental violations for each €1 spent on nuclear energy.[295]

Amongst the 33 operational committees of the *Grenelle Environnement,* which were formed in December, one dedicated to Renewable Energy has been tasked to find ways to reduce the carbon content of France's energy supply.[296] The committee identified four objectives to achieve the goal of drawing 20 % of energy from renewable sources: (1) to develop a broad suite of renewable energy sources such as biomass, geo-thermal, wind and solar energy; (2) to promote "renewable heating" networks; (3) to conduct extensive research on the environmental, economic, and societal impacts of first-generation biofuels; and (4) to promote sectoral energy self-sufficiency.[297] These aims have been clearly incorporated in the fourth chapter of the *Grenelle* draft legislation presented in June 2008: Article 15, for instance,

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[292] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy,
President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[293] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy,
President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[294] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy,
President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[295] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy,
President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[296] Renewable Energy operational committee, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 7 January 2008. Date of Access: 8 January 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/spip.php?article715. [Analyst's translation]

[297] Renewable Energy operational committee, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 7 January 2008. Date of Access: 8 January 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/spip.php?article715. [Analyst's translation]

articulates the need for energy economies and carbon-neutral technologies. Article 17 makes the national policy pertaining to renewable energies official, and announces the establishment of support to the production of heat from renewable sources, and Article 18 spells out the principles underlying the French strategy in biofuels.[298]

Even though the adoption of the *Grenelle* law might be delayed by current legislative procedures, and might certainly not enter into force before the Hokkaido Summit, the project of law has been completed in a record time given its size and scope, and is now introduced into the legislative agenda. Coupled with France's already low GHG emissions generated from the energy sector, its efforts are rewarded with a score of "full compliance."

Analyst: Jean-Benoit Fournier

France	**Score**
1C. Promote Less Emission-Intensive Energy Consumption	**0**

The French government has taken some significant steps to implement measures to increase the efficiency of domestic energy consumption. As with the "supply-side" measures listed above, most of these consumption-oriented propositions stem from the *Grenelle Environnement*'s consultations and outputs, and are embedded in the *Grenelle* law project. As transport and the housing sector are France's two largest greenhouse gas emitters, contributing 26.5 % and 18.5 % respectively,[299] the government has focused strongly on these two sectors.

With regards to increasing the energy-efficiency of buildings, the government announced at the *Grenelle Environnement*, that standards promoting greater energy efficiency will be extended to cover new housing and public buildings.[300] Thermal renovation and insulation measures will be encouraged through tax credits and loans.[301] As stated by President Sarkozy, "by 2012, all

[298] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[299] Emission de gaz à effet-de-serre, Institut Français de l'Environnement, (Paris), July 2007. Date of Access: 12 June 2008. http://www.ifen.fr/acces-thematique/changement-climatique/indicateurs-climat-et-energie/emissions-de-gaz-a-effet-de-serre-france-et-ue-15.html?print=1.
[300] Environment round table: France aims to set an example, Prime Minister Governmental Portal, (Paris), 26 December 2007. Date of Access: 2 January 2008. http://www.premier-ministre.gouv.fr/en/information/latest_news_97/environment_round_table_france_57898.html.
[301] Environment round table: France aims to set an example, Prime Minister Governmental Portal, (Paris), 26 December 2007. Date of Access: 2 January 2008. http://www.premier-

new buildings built in France should comply with the so-called 'low-consumption' standards; and by 2020, all new buildings should be energy positive, i.e. they should produce more energy than they consume."[302] As for the renovation of old buildings, France wants to double the number of renovated buildings each year.[303] The *Grenelle* Law aims at translating these objectives into concrete measures. Article 4 of the draft law sets ambitious goals of building standards for new buildings, and Article 5 defines a framework for energy audits, and renovation of existing buildings, including social housing. Article 6 stresses the importance of initiating an ambitious programme of training, recruitment, and qualification of building professionals.[304]

In addition to these measures targeting the building sector, the *Grenelle Environment Forum* put forward the need to prohibit the sale of energy-inefficient appliances as soon as alternatives become "available at a reasonable price."[305] The uncertainty inherent in such a measure is partly offset by the stated objective of prohibiting, by 2010, incandescent light bulbs and single-glazed windows.[306]

Notwithstanding these policy measures, it is in the area of transport that France has developed the most significant moves towards developing concrete policy measures that fulfill its G8 commitment to lower the emission-intensity of domestic energy consumption. First and foremost, the *Grenelle* law proposal sets targets to reducing carbon dioxide emissions in transport by 20 % for 2020, in order to reach 1990 levels.[307] Moreover, the "éco-pastille"

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ministre.gouv.fr/en/information/latest_news_97/environment_round_table_france_57898.html.

[302] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[303] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[304] Projet d'exposé des motifs relatif à la loi de programmation du Grenelle de l'environnement, dite loi Grenelle 1, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables (Paris), 7 May 2008. Date of Access: 10 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/spip.php?article902.

[305] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[306] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.

[307] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Article 9-14, 11 June 2008, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris). Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.

programme plans to reduce personal car emissions from 176g of CO_2 per kilometre to 130g of CO_2 per kilometre by 2020.[308]

As part of the Grenelle process, President Sarkozy proposed to "tax lorries traveling through France, and using [France's] road network."[309] In turn, revenue from this tax will be used to finance public modes of transport.[310] In his words, "priority will no longer be given to road construction but to other modes."[311] As an indication, the government has stated it will direct its transport investments in the construction of bus lanes, bicycle lanes, and tramways (over 1,500 kilometres), as well as in the construction of a supplementary 2,000 kilometres of TGV (train à grande vitesse) lanes, deemed to free up lines for freight train.[312]

Furthermore, Sarkozy announced the 'annual ecology tax', which will be applied to the highest-polluting new vehicles.[313] The generated revenues will pay for the withdrawal of the most polluting vehicles from roads through a "progressive and long-term vehicle scrapping bonus."[314] Known as the "green disc", the tax is accompanied by a bonus for very energy-efficient vehicles, and by extension, provides a financial incentive for drivers not to buy energy-inefficient vehicles. Drivers buying a car emitting more than 160 grams of CO_2 per kilometre will have to pay a tax (from €200 to €2,600) when paying their licence plate, and drivers buying cars emitting less than 130 grams of CO_2 will receive a bonus between €200 and €1,000.[315] This *bonus* is also matched with

[308] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Article 9-14, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[309] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[310] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[311] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[312] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[313] Official texts available at http://www.legifrance.gouv.fr/.
[314] Presentation of the Grenelle Environment Forum conclusions speech by M. Nicolas Sarkozy, President of the Republic, (Paris), 25 October 2007. Date of Access: 31 December 2007. http://www.premier-ministre.gouv.fr/en/information/press_871/presentation_of_the_grenelle_57902.html.
[315] Bonus écologiques: les textes réglementaires sont parus, Actu Environement, (Paris), 2 January 2008. Date of Access: 8 January 2008. http://www.actu-environnement.com/ae/news/bonus_malus_decret_voiture_propre_4184.php4.

a "*super-bonus*" of €300 when the purchase of a new energy-efficient car is accompanied by the scrapping of a vehicle more than 15 years old.[316]

To translate these conclusions into legislation, these objectives have been incorporated into the Grenelle Law: Chapter 3 is devoted to transportation, in which Article 9 sets a target of 20% reduction on 2020 emissions of CO_2, defines the principles of a sustainable transport policy, and specifies that road transport will be of lower priority, both for passengers and cargo; Article 10 describes, the primacy given to rail and port capacity for cargo, and provides that the government will propose the creation of a kilometre tax on lorries; Article 11 details, for passenger transport, measures taken to promote rail compared to road and aircraft. Article 12 deals with urban and suburban transport, and proposes measures to improve the environmental performance of energy and automobiles, and to accelerate the strengthening of urban public transport.[317]

Of the 33 operational committees in charge of putting the *Grenelle Environnement*'s resolutions to practice, more than a third looked at energy consumption (either through transport, buildings, appliances, or industry) as well as educative measures with the objective of informing consumers how to reduce emissions, and increase the efficient use of energy. In this vain, the ADEME recently launched a public campaign for climate change awareness, which outlines priorities in the transport and residential sectors.[318]

With regards to increasing the energy-efficiency of French industry, the government seems to rely on past agreements as no new significant policies appear to have been introduced since the Heiligendamm Summit. The most notable existing policies and agreements include the White Certificate Trading programme (industry tradable permits) and the Voluntary Agreements with Industry to Reduce GHG Emissions and Conserve Energy.[319] With the growing salience of energy-efficiency in the industrial sector, and the presence of Energy Service Companies (ESCOs) that are well-developed in France,[320] it is a pity that France does not present a framework of incentives, standards, and/or regulations on end-use energy-efficiency in the industrial sector.

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[316] Bonus écologiques: les textes réglementaires sont parus, Actu Environnement, (Paris), 2 January 2008. Date of Access: 8 January 2008. http://www.actu-environnement.com/ae/news/bonus_malus_decret_voiture_propre_4184.php4.
[317] Projet d'exposé des motifs relatif à la loi de programmation du Grenelle de l'environnement, dite loi Grenelle 1, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris), 7 May 2008. Date of Access: 10 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/spip.php?article902.
[318] Press Release, Centre Interprofessionel Technique d'Etudes de la Pollution Atmosphérique, 3 June 2008. Date of Access: 12 June 2008. http://www.citepa.org/actualites/index.htm.
[319] Energy Efficiency, Policies and Measures: France, International Energy Agency, (Paris), 2 January 2008. Date of Access: 27 January 2008. http://www.iea.org/textbase/pm/index_effi.asp.
[320] Developing an ESCO Industry in the European Union, Vincent Berrutto *et al*, European Commission, 15 March 2004, Date of Access: 10 June 2008. http://re.jrc.ec.europa.eu/energyefficiency/pdf/publications/ACEEE%202004%20paper189.pdf.

France took some decisive steps to promote more energy efficiency, particularly in the building and the transportation sector. The ambitious goals stemming from the *Grenelle Environnement* roundtable have been translated into legislation that is now submitted to the attention of legislators. Yet, no obvious funding has been allocated to actually implement projects on the ground, and the lack of action targeting the industrial sector, constitute significant shortcomings in France's compliance record. Therefore, France is awarded a score of "work in progress."

Analyst: Jean-Benoit Fournier

France	**Score**
1D. Support for Climate Adaptation in DCs	**+1**

A multiplicity of France's public agencies that have traditionally provided national climate risk assessment through satellite observation systems, provide research and information to developing countries on climate change, and have continued to do so in the current compliance period. The Observatoire National sur les Effets du Réchauffement Climatique (ONERC) produces research on climate change impacts, vulnerability, and adaptation in cooperation with both the French Ministry of Foreign Affairs (FMFA) and the Fonds Français de l'Environnement Mondial (FFEM).[321] It mainly offers support for adaptation policies for its overseas territories, but this provides a basis for supporting north-south collaboration with regards to adaptation policies throughout its collaboration with the FMFA and the FFEM.[322] ONERC contributed to research focusing on economic cost analysis of adaptation at a global level that was produced by the IPCC throughout 2007.[323]

France treats international cooperation to aid developing countries vulnerable to the impacts of climate change as a high priority.[324] On 20 December 2007, the Agence Française du Développement (ADF) announced it would provide €762 million to new sustainable development, mitigation, and adaptation

[321] Impacts, vulnerability and adaptation in France: From strategy to action and north-south collaboration, Ministère de l'Ecologie, du Développement et de l'Aménagement Durables, (Paris). 2008. Date of Access: 4 January 2008. http://www.ecologie.gouv.fr/Impacts-vulnerability-and.html.
[322] Observatoire national sur les effets du réchauffement climatique, Ministère de l'Ecologie, du Développement et de l'Aménagement Durables, (Paris). 2007. Date of Access: 4 January 2008. http://www.ecologie.gouv.fr/-Presentation,640-.html.
[323] Fourth Assessment Report: Climate Change Synthesis 2007, Intergovernmental Panel on Climate Change, 2007. Date of Access: 4 January 2008. http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf.
[324] Mission Interministérielle de l'Effet de Serre – Relations internationales, Ministère de l'Ecologie, du développement et de l'Aménagement durables, (Paris). 2007. Date of Access: 4 January 2008. http://www.effet-de-serre.gouv.fr/relations_internationales.

projects in more than twenty developing countries.[325] This financing package included schemes aimed at improving water resource management for agro-ecology, irrigation, and access to water projects in Madagascar, Uganda, Sudan, South Africa, Burkina Faso, and Congo.[326] Moreover, the AFD is providing financial assistance to the Maldives and Indonesia in the light of the impact natural catastrophes had on their infrastructure in the past. The agency also participates in capacity building and technology transfer programmes in order to reinforce the capacity of these countries to react to the impacts of climate change, especially to rising sea levels.[327] In this regard, the AFD also acts in partnership with Mexico to manage flood risks, and to ensure agricultural processes are environmentally sustainable.[328]

On a regional level, the AFD is sponsoring a health surveillance scheme in the Indian Ocean whose vulnerability to epidemics is aggravated by climatic conditions.[329] Similarly, despite the lack of information on recent projects, the FFEM provides financial assistance to developing countries throughout projects directly aimed at climate adaptation.[330] Also, at the end of 2007, France has offered its support to the development of adaptation policies in North Africa.[331]

Moreover, the new law proposal regarding the application of the Grenelle Environnement commitments will mobilize €1 billion in addition to the current research budget for sustainable development.[332] Even though this concerns French territories, French overseas departments will play a pivotal

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[325] Press Release, Agence Française du Développement, (Paris), 20 December 2007. Date of Access: 4 January 2008. http://www.afd.fr/jahia/Jahia/cache/offonce/lang/en/home/Presse/Communique/pid/3853;jsessionid=D60FDFD1DAF32760D94EF1CDBABBF837.

[326] Press Release, Agence Française du Développement, (Paris). 20 December 2007. Date of Access: 4 January 2008. http://www.afd.fr/jahia/Jahia/cache/offonce/lang/en/home/Presse/Communique/pid/3853;jsessionid=D60FDFD1DAF32760D94EF1CDBABBF837.

[327] Press Release, Agence Française du Développement, (Paris), 20 December 2007. Date of Access: 4 January 2008. http://www.afd.fr/jahia/Jahia/cache/offonce/lang/en/home/Presse/Communique/pid/3853;jsessionid=D60FDFD1DAF32760D94EF1CDBABBF837.

[328] Press Release, Agence Française du Développement, (Paris), 20 December 2007. Date of Access: 4 January 2008. http://www.afd.fr/jahia/webdav/site/myjahiasite/users/administrateur/public/Portail%20Eau%20et%20Assainissement/pdf/03-inondations-GB-easyprint.pdf.

[329] Press Release, Agence Française du Développement, (Paris), 20 December 2007. Date of Access: 4 January 2008. http://www.afd.fr/jahia/Jahia/cache/offonce/lang/en/home/Presse/Communique/pid/3853;jsessionid=D60FDFD1DAF32760D94EF1CDBABBF837.

[330] Climate Change, Fonds Français pour l'Environnement Mondial, (Paris), 2007. Date of Access: 4 January 2008. http://www.ffem.fr/jahia/Jahia/lang/en/accueil/pid/225.

[331] Déclaration de Tunis sur la Solidarité Internationale Face au Changement Climatique, Government of Tunisia, (Tunis), 20 November 2007. Date of Access: 12 June 2008. http://www.mdptunisie.tn/fr/conference/images/pdf/declaration_tunis_fr.pdf.

[332] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Article 19, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris). 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.

role in the application of eco-development.[333] In terms of environmental risks France plans to develop a comprehensive risk prevention arsenal for its overseas departments by 2015.[334] In this logic, France is already using its regional delegation in Guyana to support cooperation for adaptation policies in Latin American countries.[335]

These initiatives, covering a wide range of regions and sectors, illustrate how France has taken significant steps to assist and promote adaptation policies in developing countries vulnerable to climate change impacts. Aid and development agencies have provided funds for adaptation projects, while scientific research and meteorological agencies have offered research support on mitigation policies for developing countries. Although additional steps in technology transfers would further enable developing countries to manage adaptation policies independently, France's assistance so far has yielded positive results, in line with its commitment. As a result, France is assessed to be in full compliance with its commitment to support adaptation policies in developing countries.

Analyst: Ana Francisca Ramirez

France	**Score**
1E. Reducing GHG Emissions by Curbing Deforestation	**0**

Since the Heiligendamm Summit, the French government has primarily engaged in diplomacy, regulative policy deliberations, and devoted funding to address deforestation in developing countries.

The Grenelle Environnement resulted in several positive outcomes for sustainable forestry in France. Estimates suggest that the French government imports approximately US$2.8 billion of timber and wood products every year.[336] However, following the Grenelle, France will increase the production of wood while protecting forest biodiversity, and will encourage the use of

[333] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Article 46, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris). 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[334] Grenelle de l'Environnement Project of Law, Projet de Loi relative à la mise en œuvre du Grenelle de l'Environnement, Article 46, Le Grenelle Environnement - official website, Ministère de l'Ecologie, du Développement et de l'Aménagement durables, (Paris). 11 June 2008. Date of Access: 12 June 2008. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Grenelle_1_saisineCES_corr_300408.pdf.
[335] Actions Amériques, Agence de l'Environnement et de la Maîtrise de l'énérgie, (Paris), 2008. Date of Access: 12 June 2008. http://www2.ademe.fr/servlet/list?cid=96&m=3&catid=16897.
[336] France: France is the second most significant importer of tropical hardwood sawnlogs in Europe, behind Italy, (London), 2008. Date of Access: 4 April 2008. http://www.illegal-logging.info/sub_approach.php?country_title=france.

local wood in local products, for both materials and energy.[337] Additionally, according to the World Wildlife Fund, 39% of tropical wood imported into France is of illegal origin.[338] Due to this, France will reinforce the importance of certification: by 2010, all wood purchased by France will have to be certified as sustainable.[339] Moreover, under pressure from environmental organisations, France has said that it will support a proposal that is currently being considered by the EU, which would create an origin certification programme for timber imports. If mandated, this programme would target illegal logging, and reward importers and exporters that comply with natural resources protection laws.[340] On a visit to Madagascar from 22-25 May 2008, Minister of Ecology Jean-Louis Borloo said that 'we will proceed by stages towards a total ban on non-certified wood in Europe.'[341]

In terms of international engagement, France is a member of the Congo Basin Forest Partnership that aims to promote the sustainable management of the Congo Basin's forests and wildlife, which constitute the second largest ecological area in the world.[342] At the United Nations Climate Change Conference in Bali, France expressed "determined support" for the inclusion of avoided deforestation in future UNFCCC negotiations.[343] France's Minister for Ecology, Jean-Louis Borloo argued that the Bali Roadmap should include "fighting deforestation [and] forest degradation".[344] Furthermore, France promised to contribute US$5 million to the World Bank's Forest Carbon

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337 Relevé de conclusion : Programme «agriculture écologique et productive et valorisation durable de la ressource forestière », Ministère de l'Ecologie, de l'Energie, du Développement durable, (Paris), 7 November 2007. Date of Access: 20 December 2007. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Fiche_6.pdf.

338 Des courses pour la forêt: Le WWF vient de lancer un site pour alerter sur l'impact de nos courses sur la forêt tropicale, Nadia Loddo, (Bordeaux), 8 June 2008. Date of Access: 12 June 2008. http://www.metrofrance.com/x/metro/2008/06/08/yZDQjL8aknvxY/index.xml.

339 Relevé de conclusion : Programme «agriculture écologique et productive et valorisation durable de la ressource forestière », Ministère de l'Ecologie, de l'Energie, du Développement durable, (Paris), 7 November 2007. Date of Access: 20 December 2007. http://www.legrenelle-environnement.fr/grenelle-environnement/IMG/pdf/Fiche_6.pdf.

340 EU may mandate certification system for Amazon timber, mongabay.com, (San Francisco), 20 June 2008. Date of Access: 20 June 2008. http://news.mongabay.com/2008/0618-eu.html.

341 Protection des forêts tropicales : une priorité pour la prochaine présidence française de l'Union Européenne, Gondwana Biodiversity Development, (Paris), 4 June 2008. Date of Access: 12 June 2008. http://www.gondwana-agency.com/Protection.des.for%EAts.tropicales.:.une.priorit%E9.pour.la.prochaine.pr%E9sidence.fran%E7aise.de.l%92Union.Eu-378.html.

342 Congo Basin Forest Partnership, UN Partnerships for Sustainable Development, (New York), 6 April 2004. Date of Access: 8 January 2008. http://webapps01.un.org/dsd/partnerships/public/partnerships/14.html.

343 The 13th United Nations Climate Change Conference's results, 3 - 14 December 2007, Ministère des Affaires Etrangères et Européennes, (Paris), December 2007. Date of Access: 8 January 2008. http://www.diplomatie.gouv.fr/en/francepriorities_1/environment-sustainable-development_1097/environmentaldiplomacy_4155/climate_4596/13th-united-nations-climate-change-conference-results-03-14.12.-2007_10514.html?var_recherche=avoided+deforestation.

344 International Climate Conference – Speech by Jean-Louis Borloo, Ministre d'Etat, Minister for Ecology and Sustainable Planning and Development (excerpts), (Paris), 12 December 2007. Date of Access: 24 January 2008. http://www.ambafrance-uk.org/Jean-Louis-Borloo-on-Bali-climate.html.

Partnership.[345] On 21-23 November 2007, Paris hosted the International Workshop on Avoided Deforestation and the Evolution of Public and Private Forest Policies in the South, funded by the French Ministry of Research.[346] This workshop focused primarily on measures to combat deforestation, including illegal logging.[347] Further, Borloo confirmed that protection of tropical forests would be a priority for the upcoming French presidency of the European Union, which begins on 1 July 2008.[348]

On the ground, France has committed funds to curb deforestation of significant carbon sinks. On 11 June 2008, France and Madagascar signed a US$20 million conservation deal in an effort to preserve Madagascar's rich biodiversity. This money had been owed to France by Madagascar as foreign debt, but France has now allowed the money to be used in the battle against deforestation and biodiversity loss in Madagascar. The World Wildlife Fund's acting regional representative in Madagascar, Nanie Ratsifandrihamanana, has labelled the initiative as "an excellent example of innovative financing for sustainable development".[349] On 25 June 2008, as part of the EU's Forest Law Enforcement, Governance and Trade (FLEGT) action plan, France has promised €10 million to Congo over the next few years, in order to encourage the legal exploitation of forests in the south of the country. The negotiations between Congo and the European Union aim to increase efforts to organise forest exploitation as a means of reducing the negative impacts of deforestation.[350]

The Grenelle process has encouraged an increased French domestic commitment to forestry, which becomes apparent in France's proposed timber certification commitments. Additionally, France has pledged several million Euros to developing countries to help mitigate the negative effects of deforestation. France's financial contribution to the Congo Basin Forest Partnership along with France's promised contributions to the World Bank's

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[345] Les accords de la Conférence de Bali, Ministère de l'écologie, du développement et de l'aménagement durables, (Paris). 18 December 2007. Date of Access: 26 January 2008. http://www.ecologie.gouv.fr/Les-accords-de-la-Conference-de.html.

[346] International Workshop - International Regime, Avoided deforestation and the Evolution of Public and Private Forest Policies in the South, Cirad, (Paris), 21-23 November 2007. Date of Access: 8 January 2008. http://www.cirad.fr/ur/index.php/ressources_forestieres/actualites/colloques_et_seminaires/international_regime_avoided_deforestation.

[347] International Workshop - International Regime, Avoided deforestation and the Evolution of Public and Private Forest Policies in the South, Cirad, (Paris), 21-23 November 2007. Date of Access: 8 January 2008. http://www.cirad.fr/ur/index.php/ressources_forestieres/actualites/colloques_et_seminaires/international_regime_avoided_deforestation.

[348] Protection des forêts tropicales: une priorité pour la prochaine présidence française de l'Union Européenne, Gondwana Biodiversity Development, (Paris), 4 June 2008. Date of Access: 12 June 2008. http://www.gondwana-agency.com/Protection.des.for%EAts.tropicales.:.une.priorit%E9.pour.la.prochaine.pr%E9sidence.fran%E7aise.de.l%92Union.Eu-378.html.

[349] Madagascar signs conservation deal with France: WWF, AFP (Nairobi), 12 June 2008. Date of Access: 12 June 2008. http://afp.google.com/article/ALeqM5jU46sik9exufJbj2WoixwUiYbd4g.

[350] Environnement: 10 millions d'euros pour la forêt congolaise, AFP, (Paris), 25 June 2008. Date of Access: 25 June 2008. http://www.francebourse.com/fiche_news_28259.fb.

Forest Carbon Partnership, to the Congo, and its agreement to redirect Madagascar's debt toward deforestation efforts, suggest that France is making moves to provide support directly to developing countries to reduce deforestation.

Analyst: Emily Belgrade and Claire Woods

Germany

Background

The German government has introduced significant initiatives to meet its energy and climate change commitments made at the Heiligendamm Summit in June 2007. In the wake of the United Nations Climate Change Conference in Bali, 3-14 December 2007, the German government passed a comprehensive energy and climate-change package of legislation and regulations. This climate change and energy plan sets a greenhouse gas (GHG) emissions reduction target of 40 % relative to 1990 levels, by 2020. In order to help stabilise GHG emissions, Germany has announced plans to increase international cooperation and funding for the promotion of renewable energy technologies, carbon capture and sequestration (CCS), improvements of its feed-in tariff structure, and energy efficiency improvements in the built environment. The government has also announced it will promote efficient energy consumption through decreasing taxes, decreasing tolls for low-emission vehicles, and amending the Biofuel Quota Act to ensure its goals are in line with the country's renewable energy objectives. In order to help developing countries adapt to the threats of climate change, it has initiated bilateral agreements to promote an adaptation fund and technology transfer. In addition, Germany has contributed to the Forest-Carbon-Partnership Facility, which aims to find methods of compensating developing countries for efforts to reduce deforestation.

Overall, since the Heiligendamm Summit, Germany has shown a commitment to accomplish its goals towards the mitigation of, and adaptation to climate change. Nevertheless, in order to offer really progressive leadership, the government would have to propose more ambitious emissions reduction targets than what it proposes in its climate and energy package, and expand its international partnerships and alliances to help developing countries mitigate and adapt to climate change. Nonetheless, its current initiatives show the potential for other countries to follow suit. As German Chancellor Angela Merkel announced: "we hope that the example set by our decisions will be followed, and that we come together internationally to implement ambitious climate goals."[351]

Team Leader and Analyst: Vanessa Peña

Germany	Score
1A. Stabilise GHG Concentrations	**0**

[351] Blake, Mariah. In Bali, Germany takes dramatic step on climate change. The Christian Science Monitor. 5 December 2007. Date of Access: 5 January 2008. http://www.csmonitor.com/2007/1205/p10s01-woeu.html?page=2.

At the Heiligendamm Summit, Germany was among the foremost proponents of stringent emissions reduction targets for industrialized countries. Domestically, in relation to mitigating its impact on climate change, Germany has introduced a new package of climate and energy legislation, which it claimed to be the "most extensive package of energy- and climate-policy measures anywhere in the world."[352] Yet, critics point to significant contradictions in Germany's energy policy, which appear to undermine its progress towards achieving its targets. As a result, Germany is only found to be partially in compliance with its commitment to stabilise GHG emissions.

On 5 December 2007, in the wake of the United Nations Climate Change Conference at Bali Germany introduced a new package of climate and energy legislation to reach its stated target of reducing GHG emissions by 40 % by 2020, relative to 1990 levels. According to the German government, some €3.3 billion have been earmarked for climate policy for the fiscal year 2008, €1.8 billion more than in the 2005 budget.[353]

The primary objectives of the climate and energy package are (1) to ensure an uncontested place for base load energy alternatives in the future energy mix; (2) to ensure greater energy efficiency, and promote combined heat and power solutions; (3) to further expand the use of renewable sources of energy; and (4) to promote modern energy technologies such as "clean coal" as well as CO_2 recovery and sequestration.[354] In particular, the objectives focus on mitigating GHG emissions from energy consumption of electricity, heating, and traffic and transport, which together account for roughly one third of primary energy consumption.[355]

The climate and energy package proposes a legal framework that facilitates the development of clean technologies, such as carbon capture and sequestration (CCS), through promoting energy research, amending the Cartel Law, the Incentives Regulation, and strengthening competition in the energy market by reforming the Power Station Grid Connection Ordinance.[356] Following the launch of this climate change package, Germany sought to play

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[352] A great step forward for climate protection, Die Bundesregierung, (Berlin), 5 December 2007. Date of Access: 15 December 2007. http://www.bundesregierung.de/Content/EN/Artikel/2007/12/2007-12-05-energie-klima-programm__en.html.

[353] A great step forward for climate protection, Die Bundesregierung, (Berlin). 5 December 2007. Date of Access: 15 December 2007. http://www.bundesregierung.de/Content/EN/Artikel/2007/12/2007-12-05-energie-klima-programm__en.html.

[354] Pointing the way forward for energy and climate policy until 2002, Die Bundesregierung, (Berlin), 5 July 2007. Date of Access: 25 January 2007. http://www.bundesregierung.de/nn_6562/Content/EN/Artikel/2007/07/2007-07-03-energiegipfel__en.html.

[355] Pointing the way forward for energy and climate policy until 2002, Die Bundesregierung, (Berlin), 5 July 2007. Date of Access: 25 January 2007. http://www.bundesregierung.de/nn_6562/Content/EN/Artikel/2007/07/2007-07-03-energiegipfel__en.html.

[356] Pointing the way forward for energy and climate policy until 2020, Die Bundesregierung, (Berlin), 5 July 2007. Date of Access: 25 January 2007. http://www.bundesregierung.de/nn_6562/Content/EN/Artikel/2007/07/2007-07-03-energiegipfel__en.html.

a leading role in the negotiations at the United Nations Climate Change Conference in Bali 3-14 December 2007.[357] Speaking at the conference, Environment Minister Sigmar Gabriel urged industrialised nations to commit to a medium term goal to reduce GHG emissions by 30 % by 2020.[358] Although the outcomes of the conference did not meet Germany's initial expectations, Gabriel nevertheless welcomed the negotiated Bali roadmap as major progress, and reconfirmed Germany's commitment to work towards a second climate protection agreement.[359]

On 6 June 2008, the federal parliament passed a package of legislative measures for its climate target which includes *inter alia* the increase of renewable energies to between 25 and 30 %, and the doubling of the share of combined heat and power generation to 25 % by the year 2020.[360] But recently the federal cabinet rescheduled the adoption of a second package which includes stronger rules for the toll system of HGVs, the extension of the electricity grid, and stronger rules for the sanitation of buildings, to the end of June. Furthermore it stopped the reformation of the car tax, mainly because of internal struggle between different ministries and the federal states.[361]

Apart from Germany's actions towards reducing GHG emissions domestically, it took action towards climate change mitigation at bilateral and multilateral levels. In this respect, the Federal Ministry for Economic Cooperation and Development (BMZ) provides the bulk of Germany's contributions to global climate protection. In 2008, some €900 million will be committed in the bilateral and multilateral sphere for climate protection efforts in developing countries, mostly for projects and programmes concerned with renewable energy and energy efficiency.[362] On 27 July 2007, Development Minister Heidemarie Wieczorek-Zeul rejected demands for ending development cooperation with China, stressing that continued cooperation with developing countries in the fields of renewable energy and energy efficiency is necessary

[357] 'Everyone must do their bit to protect the climate,' says Chancellor Merkel, Die Bundesregierung, (Berlin), 3 December 2007. Date of Access: 25 December 2007. http://www.bundesregierung.de/nn_6538/Content/EN/Artikel/2007/12/2007-12-03-klimakonferenz-auf-bali-hat-begonnen__en.html.

[358] Bali must lay the foundations for the future, Speech by Federal Environment Minister Sigmar Gabriel at the meeting of the Conference of the Parties to the UNFCCC, BMU, (Berlin), 12 December 2007. Date of Access: 26 December 2007. http://www.bmu.de/english/speeches/doc/40641.php.

[359] Minister Gabriel welcomes Bali outcome as major progress, BMU, (Berlin), 15 December 2007. Date of Access: 25 December 2007. http://www.bmu.de/english/current_press_releases/pm/40640.php.

[360] Mehr erneuerbare Energien, Der Bundestag, (Berlin), 6 June 2008. Date of Access: 09 June 2008. http://www.bundestag.de/aktuell/archiv/2008/20662260_kw23_energie/index.html.

[361] Governmental press conference of May 26th, Die Bundesregierung, (Berlin), 26 May 2008. Date of Access: 27 May 2008. http://www.bundesregierung.de/nn_1516/Content/DE/Mitschrift/Pressekonferenzen/2008/05/2008-05-26-regpk.html.

[362] Development policy more important than ever before, says Wieczorek-Zeul, BMZ, (Berlin), 28 November 2007. Date of Access: 26 December 2007. http://www.bmz.de/en/press/pm/2007/november/pm_20071128_136.html.

to mitigate global climate change.[363] As an indication, on 8 November 2007, Germany announced it would intensify its cooperation with India, channelling €72 million to strengthen India's renewable energy and energy efficiency programmes.[364] Similarly, it aims to channel €92 million into its cooperation with Brazil during the next two years, mainly focusing on raising the efficiency and sustainability of Brazil's energy system, and protecting its rainforest.[365] Further, Environment Minister Sigmar Gabriel announced to spend the profit of €40 million of the auction of carbon certificates for the conservation of natural carbon storages like forests and moors, and for the adaptation of natural habitats to climate change.[366] In November 2007, the German Development Cooperation (GTZ) finalised its capacity development scoping mission related to CDM in Rwanda, as part of GTZ' plans to implement future training programmes in five African countries.[367] Last but not least, in June, Germany along with the other G-8 nations discussed the Climate Investment Fund, at Osaka, which includes the Clean Technology Fund and the Strategic Climate Fund. The Clean Technology Fund will aim to slow the growth of emissions in developing countries. The Strategic Climate Fund will help more vulnerable countries adapt their development programs to the impacts of climate change ensuring climate resilience, and will take action to prevent deforestation.[368]

Germany's commitment to reduce domestic emissions by 40 % demonstrates a bold step in international climate change politics. Yet, despite the various actions that Germany has adopted, some non-governmental voices are critical of Germany's actual achievements with respect to reducing GHG emissions. For example, Germany is in danger of missing its 2020 reduction target, and its goals appear to have been overly optimistic.[369] Hans-Josef Fell, the parliamentary member and scientific development speaker of the Bündnis90/Green party, points out that Germany's fast progress in emissions reductions does not actually derive from its policies, but rather from the

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[363] Strategic cooperation with China in Germany's interest, BMZ, (Berlin), 27 July 2007. Date of Access: 28 December 2007.
http://www.bmz.de/en/press/pm/2007/july/pm_20070727_90.html.
[364] Germany strengthens environmental and climate protection in India, BMZ, (Berlin), 8 November 2007. Date of Access: 28 December 2007.
http://www.bmz.de/en/press/pm/2007/november/pm_20071108_128.html.
[365] Partnerschaft mit Brasilien für globalen Umwelt- und Klimaschutz Entwicklungszusammenarbeit wird Brasiliens neuer Rolle als globaler Akteur angepasst, BMZ, (Berlin), 23 November 2007. Date of Access: 1 January 2008.
http://www.bmz.de/de/presse/pm/2007/november/pm_20071123_135.html.
[366] Gabriel will "Biopiraterie" den Kampf ansagen, BMU (Berlin), 14 May 2008. Date of Access: 27 May 2008.
http://www.bmu.de/pressemitteilungen/aktuelle_pressemitteilungen/pm/41437.php.
[367] CDM Highlights No. 54, Monthly newsletter of the GTZ Climate Protection Programme (CaPP), Perspectives GmbH, (Eschborn), 7 November 2007. Date of Access: 2 January 2008.
http://www.gtz.de/de/dokumente/en-climate-cdm-highlights-11-07.pdf.
[368] G-8 Finance Ministers' Statement on the Climate Investment Funds, Ministry of Finance, (Japan), 14 June 2008. Date of Access, 17 June 2008.
http://www.mof.go.jp/english/if/su080614a.pdf.
[369] Germany Shoots Wide on Emissions Target, Says New Report, Deutsche Welle, 21 May 2008. Date of Access: 27 May 2008. http://www.dw-world.de/dw/article/0,2144,3350372,00.html.

historic accident of the collapse of Eastern Germany's industry.[370] Against this backdrop, the actual achievement of a 40 % reduction relative to 1990 levels is in fact not as ambitious. Even so, a study of Eutech commissioned by Greenpeace, highlights that Germany's package is likely to fail to achieve the targeted emissions reduction of 40 %.[371] This is mainly due to current plans to secure future energy supply by the construction of additional coal fired power plants, even if future construction plans may incorporate the use of clean coal technologies.[372] Additionally, a new study of Ecofys commissioned by the green party assumes that the planned and introduced measures will reduce the carbon emission of 2020 only by 100-140 millions tons pf CO_2eq instead of 270 million tons.[373]

In conclusion, even though Germany's climate and energy plan suggest a significant step in the right direction, these contradictions in Germany's energy policy render its overall compliance only to be partial.

Analysts: Carola Kenngott, Vanessa Peña, and Alexandre Shrode

Addendum

- On 18 June 2008, the Federal has approved the second part of the integrated energy and climate programme that strives to enhance efficiency in energy consumption and increase the share of renewable energy sources.[374]

Germany	**Score**

[370] Heiße Luft, Die fünf größten Schwachstellen im Klimaprogramm der Bundesregierung. Hans-Josef Fell, Buendnis 90/Die Gruenen, (Berlin), 5 May 2007. Date of Access: 15 December 2007. http://www.hans-josef-fell.de/cms/component/option,com_docman/task,doc_download/Itemid,231/gid,216/.
[371] Energie & Management GmbH. Bewertung und Vergleich mit dem Greenpeace Energiekonzept 'Plan B,' EUtech, (Aachen), November 2007. Date of Access: 15 December 2007. http://www.greenpeace.de/fileadmin/gpd/user_upload/themen/klima/Halbzeit_Kurzbewertung_IKEP.pdf.
[372] Klimaschutzpaket: Zum Scheitern verurteilt?, Greenpeace, (Hamburg), 5 May 2007. Date of Access: 15 December 2007. http://www.greenpeace.de/themen/klima/nachrichten/artikel/klimaschutzpaket_zum_scheitern_verurteilt/.
[373] Erreicht das integrierte Klima- und Energiepaket der Bundesregierung die gesetzten Einsparziele?, Ecofys / Kleßmann (Köln), 15 May 2008. Date of Access: 27 May 2008. http://www.gruene-bundestag.de/cms/klimaschutz/dokbin/234/234683.ikepgutachten.pdf.
[374] Zweites Klimaschutzpaket geschnürt, Die Bundesregierung, (Berlin), 18 June 2008. Date of Access: 2 July 2008. http://www.bundesregierung.de/nn_1272/Content/DE/Artikel/2008/06/2008-06-18-klimapaket-2.html.

1B. Promote Less Emission-Intensive Energy Production +1

In terms of promoting less-emission intensive energy production, Germany has pledged to invest in research and development to promote clean and renewable energy technologies. In addition to being one of the most progressive states in renewable energy production, Germany has adopted what is said to be one of the most comprehensive climate protection packages enacted worldwide.[375] This package sets the target to double the share of renewable energy in the total energy mix, from current 13 % to 25 to 30 %, by 2020.[376] Other initiatives include partnerships for the advancement of carbon capture and sequestration technology, and improvements in the feed-in tariff system.

Germany has partnered with industry to make the production of solar cells more cost-effective, and to increase their commercialisation.[377] Another renewable energy technology promoted by the German government is offshore wind turbines. On 4 December 2007, the government announced that it would intensify cooperation with Denmark and Sweden to support the deployment of off-shore wind energy projects in the North Sea and the Baltic Sea.[378] It projects that offshore wind energy in German marine areas could generate up to 25,000 megawatts of installed capacity by 2025/2030, equivalent to 15 % of Germany's current energy demand.

Germany's legal framework fosters investments in clean technologies. As part of the German federal government's Market Incentive Programme, funds available for investments in heat-saving technologies, such as solar thermal systems and heat pumps, will increase to €500 million in 2009.[379] This programme complements the already successful Renewable Energies Sources Act (EEG) that pays "feed-in tariffs" to owners of renewable energies systems, thus creating an incentive to own renewable energy systems, and increasing demand for such products.[380] Furthermore, Germany has taken action to

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[375] In Bali, Germany takes dramatic step on climate change, The Christian Science Monitor, 5 December 2007. Date of Access: 5 January 2008. http://www.csmonitor.com/2007/1205/p10s01-woeu.html.
[376] A great step forward for climate protection, Die Bundesregierung, (Berlin), 5 December 2007. Date of Access: 15 December 2007. http://www.bundesregierung.de/Content/EN/Artikel/2007/12/2007-12-05-energie-klima-programm__en.html.
[377] German Government and Industry Boost New Technology, Printed Electronics World, 21 August 2007. Date of Access: 5 January 2008. http://www.idtechex.com/printedelectronicsworld/articles/german_government_and_industry_boost_new_technology_00000670.asp.
[378] Germany, Denmark and Sweden intensify cooperation in offshore wind energy deployment, BMU, (Berlin), 4 December 2007. Date of Access: 5 January 2008. http://www.bmu.de/english/current_press_releases/pm/40570.php.
[379] Renewable Energy Europe 2008: Clean-Tech and Energy Efficiency Major Players in German Economy, Fox Business, 2 June 2008. Date of Access: 5 June 2008. http://www.foxbusiness.com/story/markets/industries/energy/renewable-energy-europe--clean-tech-energy-efficiency-major-players-german/.
[380] Renewable Energy Europe 2008: Clean-Tech and Energy Efficiency Major Players in German Economy, Fox Business, 2 June 2008. Date of Access: 5 June 2008.

improve its feed-in tariff system design through participation in international workshops of the International Feed-In Cooperation[381] that aims to improve the feed-in tariff systems in participating countries. Germany's participation in the fourth workshop, which was held 18-19 October 2007 in Slovenia, reflects its commitment to exchange ideas and experiences with other countries, in order to strengthen public incentive programmes for renewable energy markets.

Addressing the current situation of coal production, Germany has announced it will double the percentage of electricity generated in combined heat and power stations, from the current level of 12 % to around 25 % by 2020.[382] In addition, every year, Germany will provide €750 million for power stations to integrate heat production in addition to electricity production. Moreover, Germany will increase the funding available for these ventures up to €350 million a year until 2012.[383] In addition, there are plans to better integrate renewable energies into the national electricity grid.

The issue of promoting less emission-intensive energy production through biofuels has caused substantial controversy within Germany, and globally. German Chancellor Angela Merkel and Mexican President Felipe Calderon agreed in May 2008 to push the debate on the world food crisis during the next G8 Summit in Japan.[384] Merkel and Calderon having debated the causes of the crisis identified the use of food to produce biofuels as one of them, especially in the United States, where a push to produce ethanol from corn has driven up the price of the grain. Thus, Merkel and Calderon encourage "second or third generation" bioenergy development, i.e. bioenergy not based on corn products, as a means to avoid policy shifting to replace food with biofuels.[385]

Nonetheless, overall, Germany's cooperation with international governments and industry, as well as concrete policy actions and budget allocations that promote renewable energy technologies, provide the basis for awarding Germany a score of +1 for its commitment to promote less emission-intensive energy production.

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http://www.foxbusiness.com/story/markets/industries/energy/renewable-energy-europe--clean-tech-energy-efficiency-major-players-german/.

[381] The 4th workshop of the International Feed-In Cooperation took place on 18 & 19 October 2007. International Feed-In Cooperation, (Berlin), October 2007. Date of Access: 5 January 2008. http://www.feed-in-cooperation.org/.

[382] A great step forward for climate protection, Die Bundesregierung, (Berlin), 5 December 2007. Date of Access: 15 December 2007. http://www.bundesregierung.de/Content/EN/Artikel/2007/12/2007-12-05-energie-klima-programm__en.html.

[383] A great step forward for climate protection, Die Bundesregierung, (Berlin), 5 December 2007. Date of Access: 15 December 2007. http://www.bundesregierung.de/Content/EN/Artikel/2007/12/2007-12-05-energie-klima-programm__en.html.

[384] Mexico, Germany to raise food crisis at G-8 summit, EFE News Service, 19 May 2008. Date of Access: 27 May 2008. http://g8live.org/2008/05/19/mexico-germany-to-raise-food-crisis-at-g-8-summit/.

[385] Mexico, Germany to raise food crisis at G-8 summit, EFE News Service, 19 May 2008. Date of Access: 27 May 2008. http://g8live.org/2008/05/19/mexico-germany-to-raise-food-crisis-at-g-8-summit/.

Analysts: Vanessa Peña and Alexandre Schrode

Germany	Score

1C. Promote Less Emission-Intensive Energy Consumption +1

Since the Heiligendamm Summit, Germany has made significant advances in its commitment to promote less emission-intensive energy consumption. The government has been focusing on long term goals rather than short-term fixes, emphasizing the connection between climate protection and economic growth.[386] Most notably, in a cabinet decision on 5 December 2007, the German government adopted an integrated climate protection and energy programme. In comparison with 1990 levels, Germany intends to reduce greenhouse gas emissions by 21 % by 2012, 40 % by 2020, and 80 % by 2050.[387] To achieve these goals, Germany aims to double energy productivity by 2020, alongside a large-scale expansion of renewable energies.[388]

As part of the programme, the German government set forth stricter requirements for energy efficiency in buildings.[389] According to the government, building sector requirements will be adjusted according to technological advances and shifts in energy prices. Through the tightened Energy Saving Ordinance, new buildings are expected to consume 30 % less energy than current levels, and the German government will contribute more than €1.4 billion per year toward the modernization of energy systems in existing buildings.[390] An individual example of a radical attempt to reduce energy cost is the juwi Group from Rhineland-Palatinate's construction of a new headquarters in Wörrstadt. This office, claimed to be the most energy-efficient building in the world, will be ready for operation in July 2008, and

[386] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 1.
[387] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 1
[388] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 1
[389] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 1.
[390] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 2.

will be 10 times cheaper to run than the current office building. [391]Among the most drastic demand-side measures, the German government will require homeowners to use renewable energy sources in new buildings, and will contribute funding to support the use of renewable energies in existing buildings (€350 million in 2008, 500 million from 2009).[392] By 2020, renewable energies should contribute 14 % of heating in Germany.[393] The second part of the integrated Energy and Climate Programme was agreed on in line with the original schedule in June 2008.[394]

Additionally, the government is introducing incentives for consumers to choose more environmentally-friendly automobiles. The government intends to amend the existing ordinance on energy consumption labelling of cars to enable consumers to more easily identify how much energy vehicles consume.[395] On 13 November 2007, the German Ministry of Finance released a plan that exempts new vehicles that emit less than 100 grams of CO_2 per kilometre from an annual tax.[396] In addition, Germany's new climate change package sets out that the government will reduce tolls for clean vehicles, and increase tolls for higher-emitting vehicles.[397] Germany is currently negotiating with France on a deal to cap emissions at an average of 120 grams per km from 2012, and introduce fines for non-compliance.[398] However, Germany is concerned that this will put its luxury car business at a disadvantage, and has argued that all cars should be required to cut emissions, even those that are already emitting at lower levels.[399] Furthermore, although Germany planned

[391]"The most energy-efficient office building in the world - the juwi Group begins construction on its new headquarters in Wörrstadt". Federal Ministry of Economics and Technology, (Berlin), 8 April 2008. Date of Access: 3 June 2008. http://www.german-renewable-energy.com/Renewables/Navigation/Englisch/Service/aktuelles,did=243126.html.

[392] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 2.

[393] A great step forward for climate protection, Die Bundesregierung, (Berlin), 5 December 2007. Date of Access: 15 December 2007. http://www.bundesregierung.de/Content/EN/Artikel/2007/12/2007-12-05-energie-klima-programm__en.html.

[394] Second Climate Package agreed, Die Bundesregierung, (Berlin), 18 June 2008. Date of Access: 27 June 2008. http://www.bundesregierung.de/Content/EN/Artikel/2008/06/2008-06-18-klimapaket-2__en.html.

[395] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 2.

[396] Germany Plans Tax Exemption for Low-Emission Cars, Deutsche Welle, 14 November 2007. Date of Access: 23 December 2007. http://www.dw-world.de/dw/article/0,2144,2912535,00.html.

[397] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 2.

[398] Germany and France near a deal on car emissions-source. ENN.com, 22 May 2008. Date of Access: 3 June 2008. http://www.enn.com/top_stories/article/36706

[399] Germany and France near a deal on car emissions-source. ENN.com, 22 May 2008. Date of Access: 3 June 2008. http://www.enn.com/top_stories/article/36706.

to amend the Biofuel Quota Act to ensure that the percentage of biofuels used for transport energy is increased to 20 %, by 2020,[400] the German government was forced to postpone this standard due to the fact that many motorists would have been required to buy more expensive fuel.[401] This means that the government is no longer likely to meet its self-set target, which was well above the EU's target of 10 % biofuel usage.[402]

In addition, Germany plans to increase production of agricultural products through rural development. As Minister of Environment, Sigmar Gabriel, said: "promoting renewable energy sources, direct marketing of organic food, farm holidays - that is in my eyes the future of agricultural policy."[403] Sustainable agriculture is important for the global food supply and sustainable employment in the agricultural sector, as well as for the conservation of biodiversity. This point was emphasized by Sigmar Gabriel and State Secretary for Agriculture in the Federal Ministry of Food, Agriculture and Consumer Protection Gert Lindemann on the International Day for Biological Diversity (IBD), 22 May 2008.[404] The promotion of local/organic foods and farm holidays have both direct and indirect effects on the level of emission intensity, since local food delivery is less emission intensive in terms of transportation, than imported foods. In addition, farm holidays provide avenues for promoting less emission-intensive holiday packages, and thus provide a way to manage the energy consumption in the tourism sector.[405]

Though these initiatives indicate a clear commitment towards improving the efficiency of energy consumption in Germany, there are still areas that could be improved. A recent emissions study by the Brussels-based European Federation for Transport and Environment show that despite efforts to curb vehicle emissions, cars produced in Germany pollute more than those produced in other European countries.[406] Thus, rather than introducing one or two eco-models, an overhaul of the entire fleet should be considered to enhance emission efficiency.[407] Other areas where Germany seems reluctant

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[400] Germany is taking action! Climate and energy policy and the cabinet decision of 5 Dec 2007, BMU, (Berlin), 5 December 2007. Date of Access: 21 December 2007. http://www.bmu.de/files/pdfs/allgemein/application/pdf/infopapier_bali_dez2007_en.pdf, p. 3.
[401] Taylor, Paul. "Germany torn on EU climate plan as car lobby bites." ENN.com, 23 April 2008. Date of Access: 3 June 2008. http://www.enn.com/top_stories/article/35199.
[402] Taylor, Paul. "Germany torn on EU climate plan as car lobby bites." ENN.com, 23 April 2008. Date of Access: 3 June 2008. http://www.enn.com/top_stories/article/35199.
[403] Federal Environment Minister Sigmar Gabriel: EU Commission sets the course for a more sustainable CAP, BMU, (Berlin), 20 November 2007. Date of Access: 5 January 2008. http://www.bmu.de/english/current_press_releases/pm/40478.php.
[404] Agriculture is essential for biological diversity, BMU, (Berlin), 22 May 2008. Date of Access: 3 June 2008. http://www.bmu.de/english/current_press_releases/pm/41517.php.
[405] Federal Environment Minister Sigmar Gabriel: EU Commission sets the course for a more sustainable CAP, BMU, (Berlin), 20 November 2007. Date of Access: 5 January 2008. http://www.bmu.de/english/current_press_releases/pm/40478.php.
[406] Heavy German Cars Pollute More than European Competition. Deutsche Welle, 15 November 2007. Date of Access: 22 December 2007. http://www.dw-world.de/dw/article/0,2144,2914156,00.html.
[407] Heavy German Cars Pollute More than European Competition, Deutsche Welle, 15 November 2007. Date of Access: 22 December 2007. http://www.dw-world.de/dw/article/0,2144,2914156,00.html.

to take actions include introducing speed limits on motorways. Even if speed limits only contribute marginally towards reducing GHGs, according to Environment Minister Sigmar Gabriel, it could set an important political statement.[408] Thus, there is scope for Germany to further strengthen its policies towards enhancing the efficiency of energy consumption. Nevertheless, policy actions since the Heiligendamm Summit warrant a score of full compliance.

Analyst: Marianne Gillis

Addendum:

- On 18 June 2008, Germany announced it would change the ordinance for billing heating costs. In the future, actual consumption of heating energy will be charged at 70 % higher than consumption-independent costs.[409]

Germany	**Score**
1D. Support for Climate Adaptation in DCs	**+1**

Germany´s commitment to help developing countries adapt to climate change is described in the announcement that the German Development Bank (KfW) achieved a new record in total investment of €4.2 billion on climate and environmental protection in 2007. This sum has jointly been invested by the German Federal Ministry for Economic Cooperation and Development (BMZ) and by KfW (57 %). It is targeted to support both structural changes as well as adaptation measures of less developed countries to adapt to consequences of climate change.[410]

Further commitments to help developing countries deal with consequences of climate change became visible in Germany´s increase of €10 million in funds for emergency food aid following an appeal by the World Food Programme for an increase in emergency aid. Underlying factors for the food crises is - next to an increasing demand for food, and growing use of agriculatural land for the growth of crops for agrofuels- the consequences of climate change. This contribution was made in light of the rising food prices impacting the most on the poorest in less developed countries. German Development Minister Wieczorek-Zeul expressed that "it must be clear to us what kind of impact rising food prices have for the poorest of the poor in particular: they have so little money that they are simply not able to pay higher prices. Our reaction to

[408] Umweltpolitik: SPIEGEL-Gespräch mit Minister Sigmar Gabriel über Klimaschutz, Tempolimits und AKW-Laufzeiten, DER SPIEGEL 5/2008 vom 28.01.2008, p. 36
[409] Änderung der Verordnung über Heizkostenabrechnung, Die Bundesregierung, (Berlin), 18 June 2008. Date of Access: 2 July 2008. http://www.bundesregierung.de/nn_1272/Content/DE/Artikel/2008/06/2008-06-18-hintergrund-heizkostenabrechnung.html.
[410] FZ-Jahresbericht 2007 – Neuer Höchststand von 4,2 Milliarden EUR Zusagevolumen, KfW Bankengruppe (Frankfurt), 15 May 2008. Date of Access: 20 May 2008. http://www.kfw.de/kfw/DE_Home/Die_Bank/AktuellesausderKfW/FZ-Jahresbericht.jsp.

the crisis must supply quick answers in order to prevent serious famines." In March, €3 million were already contributed to emergency food aid, and in April, another €10 million followed, which are additions to Germany´s annual contribution of €23 million to the World Food Programme.[411]

Furthermore, Germany engaged in government negotiations on development cooperation with Bangladesh in Dhaka.[412] Consequently, Germany committed €51 million funds for the period 2008-2009 to counter the food crisis and climate impacts in Bangladesh. With a specific focus on adaptation to climate change, Germany´s development cooperation will, for the first time, include a programme targeted at the conservation of biodiversity, and protecting the riparian landscape of one of the country´s huge river systems. Furthermore, Germany delivers concrete support improving roads and markets in rural Bangladesh to support food-producing farmers and the rural population to obtain easier access to markets so that foodstuffs can be both purchased and sold.[413]

In total, Germany has negotiated enhanced intervention in development cooperation with South-East Asian countries. €4,5 million Euros will be provided to the ASEAN (Association of South East Asian Nations) Centre for Biodiversity to enhance the security of ports in the region. The cooperation exists since 1991, and is supposed to be enlarged further. [414]

To sum up, Germany has demonstrated repeatedly during the last months that its commitment to help developing countries adapt to climate change, and consequences thereof is sustained. The above examples give an insight into the initiatives in more detail. Hence, Germany's overall rating on this commitment has increased from 0 to +1 since the assessment conducted as part of the interim report in February 2008.

Analyst: Carola Kenngott

Germany	**Score**

[411] Wieczorek-Zeul stockt Mittel für Nahrungsmittel-Nothilfe um weitere 10 Millionen Euro auf, Federal Ministry for Economic Cooperation and Development, (Berlin), 23 April 2008. Date of Access: 29 April 2008. http://www.bmz.de/en/press/pm/2008/april/pm_20080423_36.html.
[412] Shared concern over the increase in rice prices: government negotiations between Germany and Bangladesh concluded, Federal Ministry for Economic Cooperation and Development, (Berlin), 22 April 2008. Date of Access: 29 April 2008. http://www.bmz.de/en/press/pm/2008/april/pm_20080422_35.html.
[413] Shared concern over the increase in rice prices: government negotiations between Germany and Bangladesh concluded, Federal Ministry for Economic Cooperation and Development, (Berlin), 22 April 2008. Date of Access: 29 April 2008. http://www.bmz.de/en/press/pm/2008/april/pm_20080422_35.html.
[414] Ministry fosters cooperation with Association of South East Asian Nations, German Federal Ministry for Development and Cooperation, (Berlin), 11 June 2008. Date of Access: 15 June 2008. http://www.bmz.de/de/presse/pm/2008/juni/pm_20080611_51.html.

1E. Reducing GHG Emissions by Curbing Deforestation +1

Germany has demonstrated full compliance with its commitment to help curb deforestation. In various international forums, it has pledged support for the Forest Carbon Partnership, a multilateral facility that aims to assist developing countries in their efforts to reduce emissions from deforestation and land degradation. Since the Heiligendamm Summit in June 2007, Germany has also initiated, and strengthened bilateral relationships with various developing countries to address issues related to deforestation. Moreover, Germany has pledged half a billion euros (US$785 million) to help defend threatened forests.[415]

In May 2008, German Chancellor Angela Merkel said her country wanted to set a "very clear marker" on attaining the UN's Millennium goal of braking biodiversity loss by 2010. "The Federal government, between 2009 and 2012, will earmark an additional amount of €500 million," said Merkel, with an additional €500 million every year thereafter. Merkel added that, "we want to use this money in those areas where forests and other ecosystems are under threat, and to find quick solutions for conserving them."[416]
In October 2007, Germany announced its intention to provide €40 million for the implementation of a Forest-Carbon-Partnership Facility (FCPF) in support of the Forest Carbon Partnership, which was launched at the United Nations Climate Change Conference in Bali, 3-14 December 2007.[417] This pledge is the highest among partner countries.[418] The partnership's primary goal is the protection of forests in developing countries, and it offers an economic incentive for developing countries to protect their forests.[419]

At bilateral level, Germany has extended its support to sustainable forest management in the Philippines, Indonesia, and Brazil. Inter-governmental negotiations between Germany and the Philippines concluded that Germany will continue to support climate change mitigation through sustainable forest management providing a total of €20 million (for forest management as well as poverty eradication) over the next two years, which will for example

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[415] Biodiversity: German pledges 500 million euros at UN talks, Agence France Presse, 28 May 2008. Date of Access: 15 June 2008.
http://afp.google.com/article/ALeqM5izgD89Dr1TFD9bihhhAq0wfoEp4g.
[416] Biodiversity: German pledges 500 million euros at UN talks, Agence France Presse, 28 May 2008. Date of Access: 15 June 2008.
http://afp.google.com/article/ALeqM5izgD89Dr1TFD9bihhhAq0wfoEp4g.
[417] Klimawandel und Entwicklung, Die Entwicklungspolitik setzt Akzente, Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, (Berlin), October 2007. Date of Access: 15 December 2007.
http://www.bmz.de/de/service/infothek/buerger/themen/Faltblatt_Klimawandel_dt.pdf.
[418] Forest Carbon Partnership Facility Takes Aim at Deforestation, World Bank, (Washington, D.C.), 11 December 2007. Date of Access: 15 December 2007.
http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/ORGANIZATION/EXTSDNETWORK/0,,contentMDK:21581819~menuPK:3981802~pagePK:64159605~piPK:64157667~theSitePK:3167628,00.html.
[419] Bali is a first step, others must follow, German Federal Ministry for Economic Cooperation and Development, (Berlin), 15 December 2007. Date of Access: 22 December 2007.
http://www.bmz.de/de/presse/pm/2007/dezember/pm_20071211_145.html.

support communal forest management in the Visayas.[420] Similarly, on 4 October 2007, Germany announced that combating deforestation was one of the main outcomes of recent bilateral negotiations with Indonesia.[421] Furthermore, Germany announced to continue its support to the protection of the Brazilian rainforest in cooperation with other bi- and multilateral donors as well as non-governmental organisations.[422] On 26 October 2007, Germany took over the coordination of the Congo Basin Forest Partnership for the next two years.[423] This work will be supported by the GTZ' sector project on International Forest Policy (IWP), which supports the development of long-term forest protection plans in developing countries. Germany is also providing a total of €53 million for rainforest protection in Central Africa.[424]

Given the substantial commitment of funding both at the international, as well as bilateral level in various countries, and Germany's support for the Congo Basin Forest Partnership, Germany is awarded full compliance for its commitment to reduce GHG emissions by curbing deforestation.

Analysts: Alexandre Shrode and Carola Kenngott

[420] Deutsches Engagement für Konfliktbearbeitung und Klimaschutz auf den Philippinen wird ausgebaut, BMZ, (Berlin), 21 June 2007. Date of Access: 15 December 2007. http://www.bmz.de/de/presse/pm/2007/juni/pm_20070621_77.html.
[421] Indonesien strategischer Partner im weltweiten Klimaschutz, BMZ, (Berlin), 4 October 2007. Date of Access: 15 December 2007. http://www.bmz.de/de/presse/pm/2007/oktober/pm_20071004_113.html.
[422] Partnerschaft mit Brasilien für globalen Umwelt- und Klimaschutz Entwicklungszusammenarbeit wird Brasiliens neuer Rolle als globaler Akteur angepasst, BMZ, (Berlin), 23 November 2007. Date of Access: 15 December 2007. http://www.bmz.de/de/presse/pm/2007/november/pm_20071123_135.html.
[423] Deutschland koordiniert internationalen Schutz des Waldes im Kongobecken, BMZ, (Berlin), 26 October 2007. Date of Access: 15 December 2007. http://www.bmz.de/de/presse/pm/2007/oktober/pm_20071026_120.html.
[424] Deutschland koordiniert internationalen Schutz des Waldes im Kongobecken, BMZ, (Berlin), 26 October 2007. Date of Access: 15 December 2007. http://www.bmz.de/de/presse/pm/2007/oktober/pm_20071026_120.html.

Italy

Background

Since the G8 Heiligendamm Summit in June 2007, the trajectory of Italian environmental policy has continued to be influenced by the economic and political context in the country. Until the change of government in January 2008, the most important recent events to have influenced Italian climate policies are two conferences on climate change. On 12-13 September 2007, the government hosted a National Conference on Climate Change in Rome, and later in the year, it participated in the United Nations Climate Change Conference in Bali.

After dealing with a huge public budget deficit in 2007, and restarting the "Italian machine," the Italian government introduced the Budget Law of 2008, which outlined a new set of development and growth strategies. In this new context, environmental actions have played an important role, including the promotion of climate mitigation policies as a means to address energy security. The government strengthened its commitment to the Kyoto Protocol by defining new and ambitious emissions reduction targets. It established a fund for financing public awareness campaigns to promote energy-efficiency among Italian citizens, and introduced economic incentives for them to purchase low emissions vehicles and energy-efficient electronic devices. In addition, all new buildings are obliged to demonstrate energy-efficiency by obtaining green certification. Relative to renewable energy sources, it has introduced public incentive programmes, and funded research aimed at accelerating the development of the renewable and low carbon technologies industry.

On 24 January 2008, the Prodi government lost support of the majority of MPs in the Senate, and was forced to resign. A new government—the centre-right alliance guided by Silvio Berlusconi—was elected on 13 April and was officially signed in on 8 May. Given the disruption of the government in early 2008, Italy made no significant progress on climate change during that period.

While the reduction of GHG emissions has not figured among the main electoral issues in Italy, it is on the current political agenda and government officials have indicated the importance of moving forward on related initiatives. For example, the Minister of Economic Development, Claudio Scajola, in the first weeks of his mandate in May 2008, said that Italy will once again start its nuclear energy activities and build up new plants by 2013. Likewise, the new Environmental Minister, Stefania Prestigiacomo, stressed the importance of re-discussing the Italian commitment towards the Kyoto Protocol, and the need for a mix of alternative energy sources and energy-efficiency policies to solve the climate change issue.
Furthermore, Italy hosted two important international meetings in 2008: the "International Energy Forum" in April and the "High-Level Conference on

World Food Security" in June. It should be noted that former Premier Prodi strongly wanted Italy to attend both meetings.

These two events mainly contributed to reinforce Italy's role as a natural geopolitical "barycentre" for the resolution of global development issues, including climate change and food security. Cross-cutting action taken over a range of sectors and policy areas started during the Prodi government, and reflects a new broad-based and holistic response to climate change. After years of political inertia, Italy has finally embarked on a policy path that attempts to reverse the long-period of growth in domestic GHG emissions. Several initiatives point to a strategic ambition to make climate mitigation a priority across different ministries. These efforts provide a strong foundation for a comprehensive response to climate change, whilst their effectiveness will only be revealed once they are continued and put into practice by the new Berlusconi government.

In conclusion, assessment of compliance for Italy can only rest on the actions of the previous government as there has been nearly no policy-making at all since the beginning of the year. Due to the abovementioned political changes in government, no further evaluation of Italian policies is possible.

Team Leader and Analyst: Massimo Preziuso

Italy	**Score**
1A. Stabilise GHG Concentrations	**0**

Italy has shown a significant delay in implementing national measures to address its national commitments under the Kyoto Protocol, especially with regard to cutting GHG emissions. In 1998, the government introduced "guidelines for policies and national measures to reduce GHG emissions" which identified a series of areas where actions had to take place, particularly as to means of transport and energetic consumption in the industrial and housing sectors.[425] These were reviewed in 2002.[426] Yet, no progress has been made in cutting GHG emissions since and these emissions have even increased by 12.1 % since 1990.[427] The rise is mainly due to increased road transport, production of fossil-fuel energy and oil-refining.[428]

[425] CIPE resolution no. 123/2002; Date of Access: 20 December 2007. http://db.formez.it/StoricoFontiNor.nsf/bb05f9ea5aa422dbc1256a930025c290/399EF8BDE71BAFFAC1256B3B00400631/$file/Delibera %20CIPE.pdf

[426] Revisione delle linee guida per le politiche e misure nazionali di riduzione delle emissioni dei gas serra (legge 120/2002). Date of Access: 27 December 2007. http://www2.minambiente.it/Sito/settori_azione/pia/docs/deliberaCIPE_19_12_02.pdf

[427] Emissions increased from 516,851 to 579,548 GHG Mt. Italy should reach in 2012 the target of 487,1 Mt, Ministero dell'Ambiente e della tutela del territorio e del mare, Date of Access: 27 December 2007. http://www2.minambiente.it/sito/settori_azione/pia/att/kyoto/ipk_indice.asp

[428] Communication by the Commission, (COM(2007)757final)

On 24 December 2007, the government introduced the Budget Law of 2008 which established a fund for the management of GHG emissions quotas,[429] whose resources are to be channelled into the "new enterers' stocks" (those destined to new factories), in compliance with the "national plans of quotas" allocation." At least 40 % of the newly built public infrastructure will be required to obtain a certificate that states the amount of emissions reductions.[430] Globally, the 2008 Budget Law allocates about €600 million for actions directed at achieving emissions reduction targets under the Kyoto Protocol,[431] accounting for approximately five % of the total resources deployed by the law.[432] In the future, the government has committed to include in its annual Budget Law an overall evaluation of the progress made in reducing GHG emissions. [433]

On 11 December 2007, the Inter-ministerial Committee for Economic Planning (CIPE) adopted a reviewed[434] version of the 1998 resolution for reducing domestic GHG emissions, which sets 31 March 2008 as the deadline for introducing "all the necessary actions and measures to reach the goal of reducing GHG emissions in accordance with the Kyoto Protocol."[435] Areas in which the government is to most actively intervene include urban and extra-urban mobility, civil construction industry (with special focus on schools), and the promotion of eco-efficient public and private consumption.[436]

On 12 December 2007, Mr. Pecoraro Scanio declared that by 15 January 2008, all the government ministries will have to report to the CTE (Technical Committee on Emissions) on how they intend to cut emissions in their respective industry sectors, and by the end of March 2008, the new national plan will be presented. [437] In reference to these policy actions, Paolo Cento, vice-secretary of the Ministry of Economy and Finance, stated that Italy has "at last fulfilled technical requirements for gradually approaching Kyoto targets," adding that now there is an urge for "an immediate public and private commitment, also in order to avoid financial sanctions for exceeding the emissions' limit in 2012."[438] There has been little follow-up to these measures as the Prodi government ended prematurely on 24 January 2008. After the end of Prodi's coalition and following a political election held in April, the new government was instated only on 8 May 2008.In her first

[429] Law 24 December 2007, no. 244; art. 2, c. 554, e)
[430] Law 22 November 2007, no. 222; art. 26, c. 2
[431] Ambiente, 10 buone notizie, Governo Italiano. Date of Access: 2 January 2008. http://www.governo.it/GovernoInforma/Dossier/finanziaria_2008/schede_ministeri/ambiente.pdf, p. 4
[432] Giudizio del WWF Italia sulla Finanziaria 2008, WWF Italia, 17 October 2007. Date of Access: 2 January 2008. http://www.wwf.it/UserFiles/File/News %20Dossier %20Appti/DOSSIER/comunicati%20stampa/CS_WWF_17_10_07_finanziaria2008.pdf.
[433] Law 22 November 2007, no. 222; art. 26, c. 3
[434] CIPE resolution no. 135/2007, Date of Access: 20 December 2007. http://www.lexambiente.com/modules.php?name=AvantGo&file=print&sid=3651
[435] CIPE resolution no. 135/2007; art. 3 and 3.1
[436] CIPE resolution no. 135/2007; art 3.2
[437] Tagliare i Gas Serra, Portale della Federazione dei Verdi, 11 December 2007. Date of Access: 9 January 2008. http://www.verdi.it/apps/news.php?id=17433.
[438] Tagliare i Gas Serra, Portale della Federazione dei Verdi, 11 December 2007. Date of Access: 09 January 2008. http://www.verdi.it/apps/news.php?id=17433

international meeting, the Environment Ministers' Meeting on 24-26 May in Kobe, Japan, the new Minister of the Environment, Mrs. Stefania Prestigiacomo, declared her intention to revive talks on the Kyoto targets as soon as possible, given "difficulties in reaching the objectives."[15] She added that "GHG emissions have been actually increasing in Italy over the last years, notwithstanding a commitment to cut them by 6.5% yearly."[16] On 3 June 2008, Mrs. Prestigiacomo argued that such objectives are unrealistic, especially in a time of slow economic growth, and that the government's approach should shift to one that is "eco-realistic."[17] On 5 June 2008, the Minister asked the EU Commissioner of the Environment to "reconsider the criteria according to which duties to cut GHG emissions are allocated, since they are unfair as for now."[18] Accordingly, Mrs. Prestigiacomo proposed moving from a system that allocates duties based on per capita GDP, to one based on per capita emissions, which would comparatively favour Italy.[19] Despite the calls for revising the Kyoto objectives—in light of the 2009 Copenhagen Summit in which nations will decide upon the "Kyoto 2 targets"—the Minister also reaffirmed the commitment to respect current agreements.[20] Mrs. Prestigiacomo reported that the government is "defining a new action plan for the medium- and long-term, which will pay the highest attention to environmental concerns."[21]

As the new government has only very recently taken over, it is difficult to assess its policies concerning climate change. Official statements need to run the test of time and actual implementation. Italy is thus assigned a compliance score of 0. On the one hand, after the (lack of?) political inertia that had characterised the government's response to climate change during past few years, it has finally embarked on a policy path that more comprehensively tackles domestic GHG emissions. The government has recognized a need to take further and well-timed actions, and has set a deadline to devise a new comprehensive national climate change strategy. However, since a new government has come to power in May, it is premature to gauge whether these political declarations will result in concrete emissions reductions.

Analyst: Luca Paolo Virgilio

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[15] G8 e gas serra: Prestigiacomo chiede deroghe per l'Italia, Green Report, 26 May 2008. Date of Access: 27 May 2008. http://www.greenreport.it/contenuti/leggi.php?id_cont=13674
[16] Clima: G8; Prestigiacomo, da rivedere intesa UE su emissioni, Ministero dell'Ambiente e della Tutela del Territorio e del Mare, 25 May 2008. Date of Access: 27 May 2008. http://www.minambiente.it/index.php?id_doc=1189&id_oggetto=2
[17] Stefania Prestigiacomo, Non eco-scettici ma eco-realisti, La Stampa, 3 June 2008. Date of Access: 6 June 2008. http://www.lastampa.it/_web/cmstp/tmplRubriche/editoriali/gEditoriali.asp?ID_blog=25&ID_articolo=4600&ID_sezione=&sezione
[18] Prestigiacomo: "Sul nucleare il governo va avanti," Italy Global Nation (ICN), 5 June 2008. Date of Access: 6 June 2008. http://www.adnkronos.com/IGN/Politica/?id=1.0.2227458511
[19] http://www.ansa.it/opencms/export/site/notizie/rubriche/daassociare/visualizza_new.html_98385567.html Date of Access: 6 June 2008
[20] http://www.ansa.it/opencms/export/site/notizie/rubriche/daassociare/visualizza_new.html_98385567.html Date of Access: 6 June 2008
[21] Newsletter del Gestore Mercato Elettrico, June 2008, Date of Access: 9 June 2008. http://www.mercatoelettrico.org/Newsletter/20080609newsletter.pdf

Addendum:

- On 18 June 2008, the Council of Ministers (Consiglio dei Ministri) has approved the Three Year Development Plan, which, *inter alia*, contains Italy's directives for Italy's national energy strategy. This energy strategy will focus on reintroducing nuclear power to Italy, while at the same time promoting renewable sources of energy and enhance energy efficiency. The final benefits of this strategy for clean and efficiency energy production and consumption against the introduction of nuclear energy will need to be assessed in the future.[440]

Italy	**Score**
1B. Promote Less Emission-Intensive Energy Production	**0**

Relative to other European countries, Italy has an energy mix that is more heavily dependent on traditional energy sources, including hydroelectric power. While energy production from renewable sources is limited (only 7.8 % of total energy came from renewable sources in 2005), the contribution of non-traditional sources (wind power, solar, biomass, and biofuel, among others) has risen by 339 % between 1991 and 2005.[22] Achieving a new balance between cleaner and traditional sources of energy has emerged as one of the key aspects of Italy's environmental policy since the Heiligendamm Summit and Italy has partially complied in moving forward with this goal. Stimulating this agenda is a decision by the European Community that renewable sources should account for 20 % of energy production by 2020.

On 28 June 2007, the government presented the Economic and Financial Programme 2008-2011 (DPEF),[23]which underlined Italy's requirement under the European Union's renewable energy target to reduce GHG emissions by at least 20 % relative to 1999 levels, by 2020. The government announced it would adopt all the necessary measures to achieve the objective by greatly increasing domestic renewable energy production through a mix of research and economic incentives.

On 10 September 2007, the government presented *Energy: Issues and Challenges for Europe and Italy*, a position paper that responded to the paper

[440] Piano triennale per lo sviluppo, Newsletter Anno IX n. 25 del 24/06/2008, Presidenza del Consiglio dei Ministri, (Rome), 24 June 2008. Date of Access: 2 July 2008. http://www.palazzochigi.it/GovernoInforma/Newsletter/nwl_notizia.asp?idnn=2100&idnwl=379.

[22] Vademecum APAT Agenzia per la Protezione dell'Ambiente e per i servizi Tecnici:Annuario dei dati ambientali 2007; December 2007. Date of Access: 30 December 2007. http://www.apat.gov.it/site/_contentfiles/00146800/146828_vademecum_annuario07.pdf

[23] Documento di programmazione Economico-Finanziaria per gli anni 2008-2011 presented by Prime Minister R.Prodi and Minister of Economy and Finance T.Padoa Schioppa. Date of Access: 27 December 2007. http://www.governo.it/GovernoInforma/Dossier/finanziaria_2008/documenti/dpef_2008_2011.pdf

Energy Policy for Europe, adopted by the European Council on 9 March 2007.[24] In the paper, the government committed to reach three main objectives by 2020: fighting climate change, improving the reliability of energy procurement, and promoting European competitiveness. It has argued that each European Union (EU) Member State should consume energy from sources where energy production is most efficient. Subsequently, the government has come out in support of covering 100 % of investment costs for renewable energy production, including big hydroelectric plants, and affirmed that the commitment of each EU Member State must be proportional to its potential production of renewable energy.[25]

With regard to expanding renewable energy in the domestic economy, the government has introduced a number of supportive policy actions. On 24 December 2007, the government passed the 2008 Budget Law which established norms that promote the production of electric energy from renewable sources. Under an existing "green certification" scheme, plants with a production capacity exceeding one MWh receive the tradable certificate that can be used to reach the compulsory renewable energy quotas. Plants with production capacity of less than one MWh receive a fixed tariff lasting 15 years, readjusted every three years, instead of certificates. Starting in 2008, and until 25 % of internal energy consumption is composed of renewables, the green certificates that exceed the minimum quota are retired from the market at a price equal to their average price the previous year. The scheme has been expanded to include more power plants, augmenting both the value of each certificate and their market price.

Mr. Pier Luigi Bersani, the Minister of Economic Development, has committed to a target in which 25 % of Italy's total energy consumption by 2012 comes from renewable sources. In part to achieve this, the government has increased the minimum quota of renewable sources for use in national electric production from 0.35 to 0.75 percentage points.[26] It has also established a €10 million fund to support the accumulation, transportation, and utilization of hydrogen produced through new and renewable energy sources.[27] In addition, the Ministry of Environment has created a €40 million fund designed to promote renewable energy and energy-efficiency through controlling and reducing GHG emissions, and promoting thermodynamic solar electric energy production.

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[24] Energy Policy for Europe, 7224/1/07REV 1. Date of Access: 27 December 2007. http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/fr/ec/93141.pdf

[25] Subsequently, the government has come out in support of covering 100 % of investment costs for renewable energy production, including big hydroelectric plants, and affirmed that the commitment of each EU Member State must be proportional to its potential production of renewable energy. Department for European Affairs, Secretariat of the Ministerial Committee for European Affairs. Energia:temi e sfide per l'Europa e per l'Italia. Position Paper del Governo Italiano. Date of Access: 30 December 2007. http://www.governo.it/backoffice/allegati/36271-4111.pdf

[26] Budget Law 2008. December 2008. Date of Access: 30 December 2007. www.tesoro.it/web/MF2008/3256.pdf

[27] Fondo per la Piattaforma italiana per lo sviluppo dell'idrogeno e delle celle a combustibile, within the Ministry of Environment and Protection of Territory and Sea. Date of Access 30 December 2007. www.tesoro.it/web/MF2008/3256.pdf

With regards to the EU emission trading system (ETS), the European Commission asked Italy, on 15 May 2007, to review the National Allocation Plan 2008-2012 wa reduction of the allowances of 6.3 %[28] and Italy has amended it on 11 December 2007 adopting the National Allocation Plan CO_2 quotas for the period 2008-2012, after considering the judgment of the European Commission on May 2007.[29]

After a first and experimental Phase I (2005-2007), Kyoto Protocol Phase II went into effect on 1 January 2008 and will terminate on 31 December 2012, with the aim of achieving a global reduction of CO_2 emissions of 5.2 % relative to 1990.[30] For Italy, the goal is to reduce GHG by 6.5%. Italy is already paying a cost of more than €4 million per day for the difference between Kyoto objectives and its actual CO_2 emissions.[31] Former Minister of Environment, Mr.Pecoraro Scanio, said that Italy, for the first time, has reduced CO_2 emissions by 1.5 % in 2006 and 2007.[32]

On 8 January 2008 the Authority for Energy and Gas adopted a Strategic Plan for the period 2008-2010 with seven general objectives including promoting rational use of energy and the development of energy-efficiency, renewable sources and high-efficiency co-generation; the renewal of the green certificate mechanism; and the promotion of competition in the electricity and gas industries for use of greener production.[33]

On 23 January 2008 the European Commission approved a proposal by the European Parliament and Council on the effort of members states to reduce GHG emission enough to meet the reduction commitments up to 2020,[34] to promote of use of renewable energy sources,[35] and to improve geological storage of carbon dioxide.[36] In these documents Italy sets a target of 17 % of energy from renewable sources by 2020 relative to 5.2 % share in 2005, and a cut of 13 % on CO_2 emissions in those sectors excluded from ETS.

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[28] Zero Emission Fossil Fuel Power Plants. 1 June 2007. Date of Access: 30 December 2007. http://www.zero-emissionplatform.eu/website/docs/GG/Country %20Profiles/IT %20Country %20 %20Profile %2007.0601.doc

[29] Piano Nazionale di assegnazione per il periodo 2008-2012 Date of Access: 29 January 2008. http://www2.minambiente.it/sito/settori_azione/pia/att/pna_c02/docs/schema_PNA2.pdf

[30] Clima, Kyoto: dal 1° gennaio via accordo anti-emissioni .Date of Access: 24 January 2008. http://www.ansa.it/ambiente/notizie/notiziari/inquinamento/20071228193934550032.html

[31] Il costo del ritardo sugli obiettivi di Kyoto.Date of Access: 31 January 2008. www.kyotoclub.org/index.php?go=30a162

[32] Clima, Kyoto: dal 1/o gennaio via accordo anti-emissioni/ansa. Date of Access: 24 January 2008. http://www.ansa.it/ambiente/notizie/notiziari/inquinamento/20071228193934550032.html

[33] Autorità per l'Energia e il Gas: Piano strategico 2008-2010. Date of Access: 31 January 2008. www.autorita.energia.it/com_stampa/08/080109.htm

[34] Directive of the European Parliament. Date of Access: 2 February 2008. http://register.consilium.europa.eu/pdf/en/08/st05/st05849.en08.pdf

[35] Directive of the European Parliament. Date of Access: 2 February 2008. http://register.consilium.europa.eu/pdf/en/08/st05/st05849.en08.pdf

[36] Directive of the European Parliament. Date of Access: 2 February 2008. http://register.consilium.europa.eu/pdf/en/08/st05/st05849.en08.pdf

On 29 January 2008, the Conferenza Stato Regioni approved an interministerial decree to distribute a fund of €990 million for the Industrial Innovation Plan, the so-called "Industria 2015," over the period 2007-2009. On 3 and 17 March respectively the two competitions for the projects have been opened: the best proposals will obtain the financial contribution.[38]

On 18 February, the Gestore Sistema Elettrico (GSE), in application of 2008 Budget Law, has increased the size of green certificates from 1 to 50 MWh. The green certificates are part of the European ETS. This increase has led to a 50 fold rise in the number certificates available to operators.[39]

On 22 February 2008, Mr. Pecoraro Scanio, Minister for the Environment, signed the decree that makes available the funds assigned through the Budget Law of 2008 (€40 million) for thermosolar energy and other renewable energy.[40]

On 26 February 2008, a decree by the Authority for Electric Energy and Gas established the compulsory specific objectives for primary energy savings on behalf of electric and gas energy distributors for 2008.[41]

On 29 February 2008, Ministers of Economic Development and the Environment, respectively, approved the Decree of CO_2 Allocation Plan for the period 2008-2012 involving around 1,000 Italian firms. The Decree has been sent to the European Commission for definitive approval.[42]

On 26 March, the Conferenza Stato Regioni approved the decree for the incentives system for the production of energy from thermodynamic solar power plant. Environmental Minister, Scanio noted that "With this decree . . . we continue the process started with the return in Italy of Nobel Prize Carlo Rubbia, which included the creation of a task force for the National Plan for Thermodynamic Solar and the projects conducted in Puglia, Calabria, Lazio and Sardegna to build the first plants thanks to the availability of the DPEF public funds [€20 million for thermodynamics and €20 million for other renewable energies], which will allow the development of clean energy in the country."[43]

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[38] Progetti di Innovazione Industriale. Date of Access: 22 February 2008. http://www.industria2015.ipi.it/

[39] Certificati verdi: al via nuova taglia. Date of Access: 20 February 2008. http://www.ansa.it/ambiente/notizie/notiziari/energia/20080218133334596632.html

[40] Pecoraro: sbloccati i fondi. Date of Access: 26 February 2008. http://www.ansa.it/ecoenergia/notizie/rubriche/solare/20080222155434600338.html

[41] Determinazione degli obiettivi specifici di risparmio dell'energia primaria nell'anno 2008, Autorità per l'energia elettrica e il gas, 28 February 2008. Date of Access: 13 March 2008. http://www.autorita.energia.it/docs/08/001-08een.htm

[42] Decisione di assegnazione delle quote CO2 2008-2012, Ministero dell'Ambiente e della Tutela del Territorio e del Mare, 20 February 2008. Date of Access :10 March 2008. http://www2.minambiente.it/pdf_www2/emission_trading/decisione_assegnazione2008_2012.pdf

[43] Solare termodinamico: Pecoraro, da Stato-Regioni ok ad incentivi, Ministero dell'Ambiente e della Tutela del Territorio e del Mare , 26 March 2008. Date of Access: 31 March 2008. http://www.minambiente.it/index.php?id_doc=1170&id_oggetto=2

On 10 April, Minister Scanio announced an investment for the production of hydrogen in Puglia, which will be the first place in the world to have a network of hydrogen produced exclusively from renewable sources (solar and wind energy).[44] The following day, an Interministerial Decree on Sustainability in the Public Administration was issued which establishes that all public administration purchases of goods will go "green," meaning all material used by the pubic sector will have to be recyclable.[45]

On 5 May 2008, the inter-regional programme "Energie rinnovabili e risparmio energetico," approved on 20 December 2007, which encompasses Puglia, Campania, Calabria, and Sicilia for the period 2007-2013, was announced. The programme has a total budget of approximately €1.6 billion and its main objectives include increasing the quantity of renewable energy from its levels in 2006 of 4.7 % to 1.6 % and reducing GHG emissions by one megaton per year.[46] This was the first environmental annoucnment since the arrival of the new government and its new Environmental Minister, in May 2008.

In conclusion, the Prodi government has introduced several measures that set this year apart from previous years in terms of less emission-intensive energy production. It has announced an ambitious short-term policy target of sourcing 25 % of its energy from renewable sources by 2012, and has introduced some public programmes that stand to benefit new energy technologies. However, despite its stated willingness to use public regulation and investment to promote renewable energy, it has not yet implemented many of them. This may also stem from the political instability in the country early in 2008. As a result, Italy is only in partial compliance with this commitment. Lately, the new Minister for the Environment, following her colleague in the Ministry of Economy Development, has announced her willingness to start new nuclear energy plants and a more pragmatic approach to energy issues. Whether they are going to improve Italy's production of renewable energy remains to be seen.

Analyst: Ottavia Pesce

Italy	**Score**

[44] Ambiente: Pecoraro, al via prima rete mondo idrogeno verde. Date of access: 10 April 2008. http://www.ansa.it/ambiente/notizie/notiziari/energia/20080410170934631747.html

[45] Sostenibilità Pubblica Amministrazione: nasce il piano degli acquisti verdi, Ministero dell'Ambiente e della Tutela del Territorio e del Mare, 11 April 2008. Date of Access: 20 April 2008. http://www.minambiente.it/index.php?id_doc=1183&id_oggetto=2&sid=18d70ece4d12d7d7b556029c7cb50f74

[46] Rinnovabili, il programma operativo multi regione, Energethics, 5 May 2008. Date of Access:10 May 2008. http://www.energethics.it/news/27_44/1372/Rinnovabili%2C_il_programma_operativo_multiregione.html

1C. Promote Less Emission-Intensive Energy Consumption 0

In the last 12 months, Italy has introduced several measures to improve energy-efficiency in the domestic economy, including in the transportation, industrial, building, and information sectors. This saw a national action plan with concrete regulatory measures that provide real incentives for energy-savings in the economy. These constructive steps notwithstanding, Italy is still lagging behind other countries in implementing national measures to achieve EU energy-efficiency targets.

The Economic and Financial Programme 2008-2011 recognized the European Council's emissions reduction target of at least 20 % by 2020, relative to 1999 levels, and emphasized the need to increase energy-efficiency.[47] On 1 August 2007, Mr. Pierluigi Bersani, Minister of Economic Development, presented a National Action Plan on Energy-efficiency that included the Government's proposed measures to meet the target set by European Union.[48]
The plan facilitates the commercialization of energy-based products that conform to European energy-efficiency standards. These components of the National Action Plan were reinforced in the 2008 Budget Law, which extended tax breaks for the re-qualification of buildings, the installation of solar panels, and the replacement of inefficient heating systems, by 2010.[49]

As the success of demand-side interventions invariably rests on the decisions of consumers, access to credible "information" becomes an important prerequisite for making sustainable decisions. In the 2008 Budget Law, the Government created a €1 million fund to finance public awareness campaigns and promote the benefits of reducing energy consumption. The two main Government-controlled energy producers, ENI and ENEL, have implemented public awareness campaigns—ENI 30 PER CENTO and ENEL.SI., respectively—which encourage customers to engage in more rational and efficient energy consumption.

It is in the area of transport, however, that the government has introduced the most far-reaching policy measures to lower emissions. On 2 November 2007, the Ministry of Environment published a decree that promoted the diffusion of low emissions fuel through the development of relative distribution points, and their use by public transportation.[50] A "Renewal Plan" was inserted into

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[47] Documento di programmazione Economico-Finanziaria per gli anni 2008-2011 presented by Prime Minister R.Prodi and Minister of Economy and Finance T. Padoa Schioppa. Date of Access: 27 December 2007.
http://www.governo.it/GovernoInforma/Dossier/finanziaria_2008/documenti/dpef_2008_2011.pdf

[48] Minister of Economic Development National Action Plan on Energy-efficiency. 1 August 2007. Date of Access: 27 December 2007.
www.sviluppoeconomico.gov.it/pdf_upload/comunicati/phpPyTt6n.pdf

[49] Budget Law 2008. December 2008. Date of Access: 30 December 2007.
www.tesoro.it/web/MF2008/3256.pdf

[50] Programma di finanziamenti per il miglioramento della qualità dell'aria nelle aree urbane e per il potenziamento del trasporto pubblico, Ministero dell'Ambiente e della Tutela del Territorio e del Mare, 3 August 2007, published in Gazzetta Ufficiale n.255 of 2 November 2007. Date of Access: 31 December 2007.

the 2008 Budget Law to discourage car use, including a scheme that provides car owners with €150 and three years of free public transportation in exchange for getting rid of their cars. The Plan provides similar incentives to encourage car-pooling, and the purchase of low emission cars, including electric and hybrid vehicles. On top of these incentives, the National Plan for Energy-efficiency introduced a 140gr CO_2/km limit on average emissions for the automobile industry, which if implemented corresponds to a savings of 23.260 GWh/annum, or approximately 18 % of the objective set by the European Union.[51] Finally, the 2008 Budget Law also created a fund worth €500 million to support local public transport initiatives, and a fund named "One Cent for Climate," supported by consumers voluntarily contributing one cent for every litre of fuel they purchase.

The government addressed energy-efficiency in other areas of transport as well. For example, it introduced another fund worth €11 million to finance energy efficient actions and GHG emissions reductions in the shipping industry. In the railway sector, energy-efficiency programmes are also expected for TRENITALIA, the government-owned Italian rail company. The first months of 2008, coinciding with the change of Italian Government, did not see the advancement of new policies in this field. The new Minister of Environment, Mrs. Prestigiacomo, however has stressed the importance of energy-efficiency as part of a portfolio of policies needed to reach the Kyoto objectives and beyond.[52]

On 5 June 2008, as a first move on this matter, the Council of Ministers approved a 2006 legislative decree[53] on energy-efficiency receipts and obliged Italy to reduce its consumption by 10 % by 2016.[54] That gives Ente per le Nuove Tecnologe, l'Energia e l'Ambiente (ENEA) the role of "National Agency for Energy-Efficiency." The aim is "to promote the rationalization of energy use, the diffusion of higher energy-performance plants and the use of quality—certification systems." The public sector "will be required to take a leadership role towards privates, assuming measures to improve energy-efficiency."

In conclusion, while Italy lags behind many EU member states in imposing, and enforcing energy-efficiency standards in appliances, buildings, and cars, policy measures since the Heiligendamm Summit have begun to address many of these gaps. Significantly, during Prodi government, new regulations and incentive programmes have been coupled with public awareness

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http://www.sicurezzaonline.it/leggi/legamb/legamb2007./legamb2007.doc/legamb2007.din/din2007.0803.htm

[51] Energia: Bersani, presentato a Bruxelles piano efficienza, Illuminazione, 1 August 2007. Date of Access: 29 December 2007.
http://www.illuminazione-oggi.it/archives/000811.html

[52] Prestigiacomo: l'impegno dell'Italia per "Kyoto 2," newsletter del Gestore Mercato Elettrico, June 2008.

[53] Direttiva 2006/32/Ce del Parlamento Europeo e del Consiglio de 5 aprile 2006 concernente l'efficienza degli usi finali dell'energia e i servizi energetici e recante abrogazione della direttiva 93/76/CEE del Consiglio, 27 April 2006. Date of Access: 10 June 2008.
http://efficienzaenergetica.acs.enea.it/doc/dir32-06.pdf

[54] Il governo vara il Decreto sull'efficienza energetica, Confindustria, 6 June 20008. Date of Access: 10 June 2008.
http://www.confindustriaixi.it/it/news/energia_politiche_060608.html

campaigns aimed at expanding consumer knowledge and interest in energy-efficient products. However, since questions remain as to how committed the new government is to enforcing the regulations made by the former Administration, Italy only registered partial compliance with this commitment for this period.

Analyst: Massimo Preziuso

Italy	**Score**
1D. Support for Climate Adaptation in DCs	**0**

Climate change is already having serious negative consequences for economic development in many countries, and for this reason climate adaptation is increasingly addressed in the climate policies of many governments. In Italy, some recent announcements were significant in this regard, however, the change in government that occurred in early 2008 has put a hold on some initiatives for this compliance period.

On 12-13 September 2007, at the National Conference on Climate Change, Mr. Pecoraro Scanio, at that time the Italian Minister for Environment, announced the Government would release its national strategy for climate adaptation in 2008. The plan was to include an annual report on the effects of climate change on the environment, public health, and the economy, and efforts to increase public participation in climate mitigation and adaptation initiatives. The latter included the launch of a "Climate Day," marked each year on February 16, the date Italy ratified the Kyoto Protocol.[55]

To realize all of those objectives the Ministry also proposed to re-launch APAT (Agenzia per la Protezione dell'ambiente e per i servizi tecnici) as a centre of competence on the impacts of climate change and climate adaptation. With Law Decree 159/2007, the Government allocated €10 million in support of urgent adaptation and mitigation actions.[56] This was perhaps in recognition of the fact that Italy still lags behind most Annex I countries in the usage of the Clean Development Mechanism (CDM) with the exception of ENEL, the Government-controlled provider of electrical energy, which has invested in CDM projects in China.[57]

In terms of development cooperation, the Prodi Government has proposed initiatives aimed at assisting developing countries in programming and accomplishing sustainable adaptation plans that also reduce social imbalances. For example, it has called for the creation of a European fund for

[55] Valentina Corsaletti, Cambiamenti climatici: un'emergenza planetaria sottovalutata, LAICI, Date of Access: 11 January 2008. http://www.laici.it/viewarticolo.asp?Id=489
[56] Finanziaria 2008 e Decreto Legge 159/2007. Proposte verdi approvate in Senato http://www.retejonicambientale.it/proposte %20Verdi %20approvate %20in %20Senato.htm
[57] Nei progetti di Kyoto l'Italia non c'è, QualEnergia, 13 December 2007. Date of Access: 3 January 2008. http://qualenergia.it/view.php?id=485&contenuto=Articolo

adaptation on climate change to support developing countries, with a particular attention to those surrounding the Mediterranean basin.
A further priority of the Prodi Government, established after the climate change meeting in Bali, was to coordinate the measures of mitigation with those of adaptation through the National Plan for Biodiversity and the National Plan to Combat Desertification.Progress with commitment was slowed with the change in governments over the first few months of 2008. In June 2008 however the High-Level Conference on World Food Security: the Challenges of Climate Change and Bioenergy was held in Rome. The meeting focused on food and hunger in the developing world and highlighted the critical importance to "find an efficient mix of mitigation and adaptation solutions that limit the overall impact of climate change."

In conclusion, Italy is increasingly devoting time and resources to aiding developing countries with climate adaptation, as reflected in the Prodi government's proposal to draft a national climate adaptation plan and to put forth marginal funding to assist the climate adaptation efforts of developing countries. Yet, the proposed policy measures were relatively small in scale, and did not significantly increase resource flows to developing countries. Furthermore, the new Government has not established new policies and, as a result, Italy is only in partial compliance with this commitment.

Author: Massimo Preziuso

Italy	**Score**
1E. Reducing GHG Emissions by Curbing Deforestation	**0**

Policy-makers are increasingly recognizing the connection between deforestation and climate change. Domestically, Italy's GHG emissions fell marginally in 2006 after 15 years of incremental growth, which has been attributed to forest growth, accounting for at least 10 % of domestic emissions reductions.[58] However, growing attention to deforestation has placed Italian logging companies operating in developing countries, such as Cameroon and the Congo, under great public scrutiny.[59]

On 12-13 September 2007, the government organized a National Conference on Climate Change in Rome, which addressed the issue of deforestation. Numerous proposals were put forward that identify ecosystem protection as an important element in combating climate change. Proposals included a project that would identify the most vulnerable forests, and develop mechanisms to enhance their protection. In addition, the government proposed to protect vulnerable ecosystems from forest fires, and restore

[58] Le foreste salvano l'Italia, La Nuova Ecologia, 30 November 2007. Date of Access: 6 January 2008. http://www.lanuovaecologia.it/inquinamento/clima/8609.php
[59] M. Forti, L'Italia saccheggia le foreste del Camerun, Il Manifesto, 20 April 2007. Date of Access: 30 January 2008.
http://www.greenplanet.net/index2.php?option=com_content&do_pdf=1&id=19025

ecosystems that had been most damaged by climate change.[60] Finally, it announced it would develop a national strategy for biodiversity by 2010, with a focus on ecological restoration.

In December 2007, during the international environmental conference in Bali, the Italian MP, Mrs. Patrizia Sentinelli,[61] worked to speed up a major Italian initiative, in conjunction with the World Bank and FLGET (Forest Law Enforcement, Governance and Trade), against deforestation. This request is of import as it paves the way for a clearer government intervention with respect to tropical forest destruction. Critics argue that Italy should engage with international partners and must face issues of consumption of tropical wood within the country.[62] The FLEGT initiative, promoted by the European Commission, itself has been the subject of a 4 June 2008 APAT meeting with the objective to start consultations among Italian institutions to propose and evaluate policies to curb illegal deforestation and wood trade in Italy.[63]

Much of the momentum gained with regard to this commitment at the end of 2007 was lost during the first part of 2008. Among the few positive objectives achieved, include the April implementation of a decree that establishes a national register of agro-forestal carbon tanks. These will serve as a useful tool in calculating how much Italian forests contribute to the absorption of GHG emissions and at the same time help Italy comply with the Kyoto Protocol.

From an economical point of view the Budget Law of 2008 has continued Italy's commitment to limiting deforestation by appropriating €150 million for a three year forestation project and another €2 million annually for the implementation and management of the agro-forestal carbon registry.[64] From an environmental perspective however, the Budget Law can be seen simply as maintaining the status quo because while it extends the forestation policies of the previous year, it offers no new plans for curbing deforestation.[65] After analysing the text of the Budget Law, the Kyoto Club recommended that Article 45 of the Law be reviewed to better take advantage of GHG absorption of Italy's forestry. This would allow Italy to avoid the €100 million fine for being out of compliance with Kyoto Phase II protocols.[66]

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[60] Conferenza Nazionale sui Cambiamenti Climatici, Rome, 12-13 December 2007, Date of Access: 30 January 2008. http://www.conferenzacambiamenticlimatici2007.it/site/_Files/12settembre/matteucci.pdf

[61] Vice-minister of Foreign Affairs.

[62] Deforestazione: dal Governo italiano un invito all'azione, World Wildlife Federation, 20 June 2007. Date of Access: 5 January 2008. http://www.wwf.it/UserFiles/File/News %20Dossier %20Appti/DOSSIER/comunicati %20stampa/CS_WWF_19_06_07_deforestazione %20sentinelli %20_2_.pdf

[63] Il ruolo dell'Italia per combattene la deforestazione e la degradazione delle foreste a scala regionale e globale, APAT, 4 June 2008. Date of Access: 6 June 2008. http://www.apat.gov.it/site/it-IT/ContentsFolder/Notizie/2008/06/foreste.html

[64] Clima, via libera al registro delle foreste anti-gas serra, Terra, 2 April 2008. Date of Access: 4 June 2008. http://www.terra-multimedialeagricoltura.it/norme-foreste-co2.html

[65] Finanziaria 2008: e l'ambiente?, Ecoblog, 11 January 2008. Date of Access: 8 June 2008. http://www.ecoblog.it/post/5040/finanziaria-2008-e-lambiente

[66] Foreste italiane per Kyoto, QualEnergia, 26 October 2007. Date of Access: 7 June 2008. http://qualenergia.it/view.php?id=456&contenuto=Articolo

At the same time, Italy has given its support to international initiatives and agreements on climate change, including the Amazon Region Protected Areas (ARPA) program[67] and shown political will, at national level (through the government and the local administrations), to launch environmental programs, including the "100 Initiatives Against Drought and Deforestation" of June 2007, and mobilize public opinion on deforestation.[68]

In conclusion, though the Italian government gave ample attention to deforestation at its national conference, launched and extended notable policy initiatives, and began examining policies to curb the illegal deforestation and wood trade, it still needs to improve its efficiency in promoting new policy initiatives in this area (influenced in part by a weak Budget Law[69]) . Italy also needs to focus on more concrete objectives to curb deforestation both at home and in developing countries. Thus, Italy is only in partial compliance with this G8 commitment and receives a score of 0.

Analyst: Cristiana Tosti

[67] L'Amazzonia protetta fa bene al pianeta, VITA Magazine, 28 May 2008. Date of Access: 4 June 2008. http://www.vita.it/articolo/index.php3?NEWSID=94208
[68] Bruno Dettori, Comunicado Stampa, Ministero dell'Ambiente e della Tutela del Territorio e del Mare, 14 June 2007. Date of Access: 28 January 2008.
http://www.cnlsd.it/comunicato%20stampa.pdf
[69] Conferenza Nazionale sui Cambiamenti Climatici, Rome, 12-13 December 2007, Date of Access: 30 January 2008.
http://www.conferenzacambiamenticlimatici2007.it/site/_Files/12settembre/matteucci.pdf

Japan

Background

At the Heiligendamm Summit, the Japanese government proposed the "Cool Earth Initiative", a long-term strategy to halve global GHG emissions by 2050. In general terms, this will be achieved by developing technologies that reduce GHG emissions while contributing to economic growth, promote cleaner forms of energy, and provide financing to developing countries for mitigating and adapting to climate change. On 1 October 2007, Prime Minister Yasuo Fukuda stated that he would continue the policy [441] introduced by former Japanese Prime Minister Shinzo Abe.[442] Furthermore, he called for the next G8 Summit in Tokyo to be an "Environmental Summit." In this regard, the Government has recognized that it needs to take a strong leadership position in solving environmental problems reflected in several climate initiatives in the past year.[443] Japan registered particularly high compliance with respect to both promoting less emission-intensive energy production and promoting less emission-intensive energy consumption.

At the national level, the government implemented a number of actions to reduce GHG emissions and promote energy savings, including the promotion campaign to reduce CO_2 emissions by one kilogram per day and the reinforcement of energy efficiency standards for automobiles. And at the international level, the Government has provided financial and technological aid to developing countries to tackle climate change and save energy.[444]

While the Japanese government has for the most part achieved the climate commitments it made at the previous G8 Summit, its policy actions have not exceeded expectations. Several approaches taken by the Japanese Government have been weak and noticeably less innovative than those taken by other industrialized countries. For instance, in contrast to many other G8 governments, the Japanese government has hesitated to introduce tradable pollution permits for carbon emissions in the domestic economy because of industry opposition.[445] However, many local governments, following a long tradition of instigating environmental action, have implemented strong and innovative policies to address climate change, especially for GHG emissions reduction and the restoration of forests.

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[441] Invitation to "Cool Earth 50" - 3 Proposals, 3 Principles, Office of the Prime Minister of Japan, 24 May 2007. Date of Access: 13 December 2007. http://www.kantei.go.jp/foreign/abespeech/2007/05/24speech_e.html

[442] Policy Speech by Prime Minister Yasuo Fukuda to the 168th Session of the Diet, Office of the Prime Minister of Japan, 1 October 2007. Date of Access 13 December 2007. http://www.kantei.go.jp/foreign/hukudaspeech/2007/10/01syosin_e.html

[443] Official Interview with Minister of Economy, Trade and Industry, Akira Amari, 27 August 2007. Date of Access: 23 December 2007. http://www.meti.go.jp/speeches/data_ed/ed070827aj.html

[444] Kokusai kyoryoku Shinbun, 28 September 2007. Date of Access: 3 February 2008.

[445] Kankyo Shinbun, 29 October 2007. Date of Access: 23 December 2007. http://eco.goo.ne.jp/news/files_daily/daily_20071029_818.html

Team Leader and Analyst: Takashi Sagara

Japan	Score
1A. Stabilise GHG Concentrations	**0**

As the host of the Kyoto Protocol in 1997, Japan has a strong incentive to be supportive of international efforts to stabilise GHG emissions. Since the Heiligendamm Summit, the Japanese government and various ministries have implemented public awareness campaigns to diffuse information and build knowledge about climate change and have carried out policies to reduce GHG emissions. On 3 July 2007, the Ministry of the Environment (MOE) started the promotion campaign, an idea first proposed by former Prime Minister Shinzo Abe, which encouraged citizens to reduce their CO_2 emissions by one kilogram per day.[446] In addition, the government is partnering with 200 companies to provide consumers with more climate-friendly products and reward purchases.[447] On 7 December 2007, the Cabinet approved a set of basic principles concerning the promotion of contracts between the state and public corporations that show an interest in reducing GHG emissions.[448]

Prior to the Heiligendamm Summit, METI started to examine how a domestic Clean Development Mechanism (CDM) could be used to provide incentives for large companies to help domestic SMEs reduce their GHG emissions.[449] On 6 December 2007, it issued a report which announced a mechanism whereby SMEs carry out verified emissions reduction projects for large companies in return for financial and technological assistance. For doing so, large companies receive emissions reduction credits which be used to meet their

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[446] Hitori itiniti itikiroguramu no CO2 sakugen ouen campaign ni tsuite (Regarding the 'Go for it! CO2 emissions reduction by one kilogram, per person per day' promotion campaign), 3 July 2007. Date of Access: 23 December 2007.
http://www.env.go.jp/press/press.php?serial=8542

[447] Hitori itiniti itikiroguramu no CO2 sakugen ouen campaign no kyosankigyo ni tsuite (Regarding the supporting corporations for the 'Go for it! CO2 emissions reduction by one kilogram, per person per day' promotion campaign), 25 December 2007. Date of Access: 2 January 2008. http://www.env.go.jp/press/press.php?serial=9204

[448] Kuni oyobi dokuritsugyoseihojinto niokeru onshitsukokagasu tono haishutsu no sakugen ni hairyoshita keiyaku no suishin ni kansuru kihonhoshin kaisetsu shiryo (Materials: a guide for basic principles concerning promotion of contracts of the state and public corporations that consider reduction of GHG emissions). Date of Access:23 December 2007.
http://www.env.go.jp/policy/ga/bp_mat/bp_sdoc.pdf; Kuni oyobi dokuritsugyoseihojinto niokeru onshitsukokagasu tono haishutsu no sakugen ni hairyoshita keiyaku no suishin ni kansuru kihonhoshin ni tsuite (Regarding for basic principles concerning promotion of contracts of the state and public corporations that consider reduction of GHG emissions), 6 December 2007. Date of Access: 23 December 2007.
http://www.env.go.jp/press/press.php?serial=9137

[449] Chushokigyoto CO2 haishutsuryo sakugen seido no kohyo ni tsuite (Regarding the official announcement on a system for CO2 emission reduction from SMEs), 10 December 2007. Date of Access: 23 December 2007.
http://www.meti.go.jp/press/20071210002/20071210002.html

voluntary targets set by the government. On 31 January 2008, the MOE held the first meeting of the study-group for voluntary emissions trading and the Global Warming Prevention Headquarters for the Prime Minister of Japan and its Cabinet began considering the emissions-trading programme.[450] Following this, on 25 April 2008, plans were announced to create a council for domestic credit promotion consisting of large corporations and businesses with the intent of establishing the METI's domestic CDM programme.[451]

On 6 March 2008, the MOE proposed revisions to earlier climate change legislation in an effort to make GHG emissions reductions obligatory and publicly reprimand those companies whose reductions are unsatisfactory.[452] This proposed revision was rejected and instead new legislation was sought that would mandate companies to make an effort to reduce GHG emissions.[453] Furthermore, on 14 May 2008, it was reported that Prime Minister Yasuo Fukuda was to announce long-term GHG emission targets for 2050 by the middle of June.[454] These reductions would be for between 60 and 80 % based on emissions from 2000. While the reference year for emissions reductions set by the Kyoto Protocol is 1990, 2000 was proposed due to pressure of industry leaders.[455] Government sources argue that these statements are not persuasive enough to lead discussions on climate change at the coming G8 Summit.[456]

At the international level, the Japanese Government has promoted regional cooperation with other Asian countries on climate mitigation. On 30 December 2007, Prime Minister Yasuo Fukuda and Wen Jiabao, the Premier of the State Council of the People's Republic of China, agreed to cooperate on addressing environmental and energy security problems, especially global climate change.[457] This included joint research projects on climate mitigation and adaptation, and research exchanges between Chinese and Japanese universities and research institutes between 2008-2012.[458] Prime Minister

[450] Kankyo Shinbun, 12 February 2008. Date of Access: 30 May 2008.
http://eco.goo.ne.jp/news/files_daily/daily_20080212_953.html
[451] Kankyo Shinbun, 25 April 2008. Date of Access: 30 May 2008
http://eco.goo.ne.jp/news/files_daily/daily_20080425_1056.html
[452] Kankyo Shinbun, 6 March 2008. Date of Access: 30 May 2008.
http://eco.goo.ne.jp/news/files_daily/daily_20080306_987.html
[453] Kankyo Shinbun, 6 March 2008. Date of Access: 30 May 2008.
http://eco.goo.ne.jp/news/files_daily/daily_20080306_987.html
[454] Kankyo Shinbun, 14 May 2008. Date of Access: 30 May 2008.
http://eco.goo.ne.jp/news/files_daily/daily_20080514_1075.html
[455] Kankyo Shinbun, 30 January 2008. Date of Access: 30 May 2008.
http://eco.goo.ne.jp/news/files_daily/daily_20080130_936.html
[456] Kankyo Shinbun, 30 January 2008. Date of Access: 30 May 2008.
http://eco.goo.ne.jp/news/files_daily/daily_20080130_936.html
[457] Nihonkokuseifu to Chukajinminkyowakokuseifu tono kankyo/energy bunya niokeru kyoryokusuishin ni kansuru kyodo communiqué (Joint communiqué between the Government of Japan and the Government of the People's Republic of China concerning promotion of cooperation in the environmental and energy sectors), December 2007: Date of Access: 2 January 2008.
http://www.mofa.go.jp/mofaj/kaidan/s_fukuda/china_07/annex1.html
[458] Nihonkokuseifu to Chukajinminkyowakokuseifu niyoru kikohendomondai o taishotoshita kagakugijutsu kyoryoku no issono kyoka nikansuru kyodoseimei (Joint-statement between the Government of Japan and the Government of the People's republic of China concerning further reinforcement of technological cooperation in global climate change), 28 December

Fukuda addressed the World Economic Forum on 26 January 2008 at its annual meeting and stated that Japan would, along with other major GHG emitters, set a quantified national target for emissions reductions within the post-Kyoto framework. Furthermore, in setting targets, he proposed that they could be set based on a bottom-up approach and that reference years need to be reviewed in terms of equity.[459]

On the basis of this analysis, the Japanese government receives only partial compliance with its commitment to stabilise GHG emissions. It has promoted many schemes aimed at incentivizing reductions and increasing public awareness of climate change. However, it has hesitated to introduce tradable permits or other economic instruments to reduce GHG emissions in the face of industry opposition, which has drawn criticism from Dr Rajendra, the IPCC Chairman.[460] In addition, Japan sided with the United States, Canada, and Russia during the UN Climate Change Conference in Bali and rejected the EU's proposal of a 25-40 % cut in global GHG emissions by 2020.[461] This resistance on the international stage stands in contrast to some local governments in Japan that have shown a greater political will to set targets and reduce GHG emissions. For example, on 29 November 2007, the Tokyo Metropolitan Government issued a report which announced that the commission would consider the feasibility of carbon tax for fuel consumption such as gasoline usage.[462] This illustrates how a transition to a low-carbon economy is as much a function of sub-national political initiatives as strategic planning by the Japanese government.

Analyst: Takashi Sagara

Addendum:

- On 18 June 2008, the *Japan Times* reported that the government of Japan is set to consider a so-called environment tax on oil, coal and other greenhouse gas-producing fuels as part of an overall tax reform plan later this year, according to an economic policy draft paper released Tuesday. This the first time that an environment tax has been included in the policy paper as part of Japan's effort to lower greenhouse gas emissions. Furthermore, Prime Minister Fukuda

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2007. Date of Access: 2 January 2008.
http://www.mofa.go.jp/mofaj/area/china/ks_0712.html

[459] Special Address by H.E. Mr. Yasuo Fukuda, Prime Minister of Japan On the Occasion of the Annual Meeting of the World Economci Forum Congress Center, Davos, Switzerland 26 January 2008.
http://www.weforum.org/pdf/AM_2008/Transcript_Fukuda.pdf

[460] Kankyo Shinbun, 29 October 2007. Date of Access: 23 December 2007.
http://eco.goo.ne.jp/news/files_daily/daily_20071029_818.html

[461] Summary of the thirteenth conference of parties to the UNFCCC and third meeting of Parties to the Kyoto Protocol, Earth Negotiations Bulletin, Vol. 12 No. 354, International Institute for Sustainable Development, 18 December 2007. Date of Access: 27 December 2007. http://www.iisd.ca/vol12/enb12354e.html

[462] MSN Sankei News, 30 November 2007. Date of Access: 03 February 2008.
http://sankei.jp.msn.com/life/environment/071130/env0711300112002-n1.htm

announced last week a plan to introduce carbon trading on a trial basis later this year with an eye to cutting Japan's emissions by 60 percent to 80 percent by 2050.[463] Yet, it remains to be seen whether Fukuda will be able to break the resistance of the business lobby who have in the past been responsible for stalling important policies in this respect.

Japan	**Score**
1B. Promote Less Emission-Intensive Energy Production	**+1**

Japan faces a harsh reality in its energy economy. Although Japan is the world's third largest energy consumer, domestic energy production is negligible. This has increased pressure on the Japanese government to promote renewable energy as a means to replace energy imports from dirtier sources and the Government has taken several actions during the compliance period to fully comply with its G8 commitment to promote less emission-intensive energy production primarily by making technology and innovation a major component of its "Cool Earth 50" initiative.

On 7 October 2007, Prime Minister Fukuda, as part of promoting the "Cool Earth 50" initiative, said Japan was committed to "generate new power" by investing in new technology and innovation.[464] According to law, electric power companies must more than double their use of renewable energy sources—wind, solar, small-sized hydro plants, terrestrial heat and biomass—to 1.35 % of Japan's total electricity supply by March 2011. This is intended to stimulate domestic demand for energy produced from renewable sources as a means to build a market for newly established technology companies.

In furthering the initiative's goals, on 5 March 2008, the Ministry of Economy, Trade, and Industry (METI) finalized the "Cool Earth-Innovative Energy Technology Programme" which selected 21 technologies that should be given higher priority; established an energy technology innovation roadmap through 2050; and sought ways to promote more international cooperation within the field of energy technology innovation.[465] The 21 technologies selected for increased research and development were classified based on their impact on expansion of low-carbon energy utilization, energy-efficiency, and whether they were on the supply side or demand side of energy consumption and production.[466]

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[463] As G-8 summit nears, environment tax on fuels eyed, The Japan Times, 18 June 2008. Date of Access: 3 July 2008. http://search.japantimes.co.jp/cgi-bin/nb20080618a2.html.
[464] Fukuda Pushes Cool Earth 50 Initiative, Japan Times, 8 October 2007. Date of Access: February 22 2008. http://search.japantimes.co.jp/cgi-bin/nn20071008a7.html
[465] Cool Earth-Innovative Energy Technology Programme, METI, 5 March 2008. Date of Access: 13 June 2008.
http://www.meti.go.jp/english/newtopics/data/pdf/031320CoolEarth.pdf
[466] Cool Earth-Innovative Energy Technology Programme, METI, 5 March 2008. Date of Access: 13 June 2008.
http://www.meti.go.jp/english/newtopics/data/pdf/031320CoolEarth.pdf

As outlined in the "Cool Earth-Innovative Energy Technology Programme," Japan is not only looking to reduce its own energy emissions, but to cooperate with the international community to lower emissions globally. In this vein, on 26 January 2008, Prime Minister Yasuo Fukuda announced a $10 billion package for developing countries to adopt new energy technologies. The five-year "Cool Earth Partnership" fund—financed through public and private monies—will provide $8 billion to developing countries for assistance in climate change mitigation and another $2 billion in grants, aid, and technical assistance to those countries switching to clean energy technologies.[467]

This willingness to engage in international cooperation, particularly with the United States, was in evidence throughout this compliance period. On November 16 2007, Japan announced it would cooperate with the United States in developing clean technologies and deploying these in key industry sectors including low-carbon fossil power generation, transportation, land use, near-zero carbon energy.[468] As part of this effort, both countries argued that other countries should increase public funding for research and development of clean energy and climate technologies and encourage the commercialization and adoption of such technologies. Furthermore, in June 2008, Japan announced plans to cooperate with the United States in both the research and development of methane hydrate reserves,[469] which are considered promising future clean energy sources and the potential construction of nuclear power plants in the United States.[470]

Prior to this compliance period, the Japanese government committed to roughly double the energy output produced from renewable sources between 2003 and 2010.[471] Among these various kinds of new energy sources, the Government has particularly focused on the development of biomass-related power generation, especially from waste streams. For instance, on 12 July 2007, in order to substantially introduce domestic biofuels, Ministry of Agriculture, Forestry and Fisheries (MAFF) announced that it started development and verification projects for a regional-based bio-diesel fuel utilization model, in which five projects of five companies for bio-diesel fuel utilization, from material procurement, bio-diesel fuel production to sales, were developed and verified: Sun Care Fuels (Tsuchiura City, Ibaraki:

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[467] Natsuko Waki, Japan Targets Climate Change with $10 Billion Fund, Reuters, 26 January 2008. Date of Access: 13 June 2008.
http://www.reuters.com/article/environmentNews/idUSL26678137200801 26?feedType=RSS&feedName=environmentNews; and
Tokyo Wants to Add Weight to International Climate Negotiations, Europe Energy, 15 May 2008. Date of Access: 13 June 2008.
http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/homesubmitForm.do

[468] Fact Sheet: U.S.-Japan Cooperation on Energy Security, Clean Development, and Climate Change, whitehouse.gov, 16 November 2007. Date of Access: 22 February 2008.
http://www.whitehouse.gov/news/releases/2007/11/20071116-4.html

[469] Japan, US Plan Joint Work on Frozen Gas Reserves, Reuters, 7 June 2008. Date of Access: 13 June 2008. http://www.straitstimes.com/Latest%2BNews/Asia/STIStory_245379.html

[470] US, Japan Say Joining Hands in Nuclear Power Plants, Agence France Presse, 7 June 2008. Date of Access: 13 June 2008.
http://afp.google.com/article/ALeqM5h_mChEZsuJUhKGcFHAeN9tw4JjkA

[471] Kigyo no tameno biomass donyu A to Z (Introducing biomass A to Z for corporations) March 2007. Date of Access: 23 February 2008.
http://www.chubu.meti.go.jp/enetai/data/baio_a.to.z.pdf

sunflower), Eco Desu (Edogawa Ward, Tokyo: waste food oil), Nihon Shoun (Sakai City, Fukui: waste food oil), Fuchigami (Kurume City, Fukuoka: waste food oil) and Nishida Shoun (Shingu Machi, Fukuoka: waste food oil).[472]

In addition, on 1 August 2007, the methane fermentation facility was completed and moved in Suzu City, Ishikawa. This was a first project supported by MOE and Ministry of Land, Infrastructure and Transport (MLIT) to utilize biogas and bio-fertiliser made from centralised sludge and raw garbage. Furthermore, on 21 November 2007, in order to realize the dramatic innovation of technologies to produce effectively biofuels, the Committee for Innovative Technology for Biofuels was established by the METI and MOE in cooperation with industry and academia.[473] The committee seeks to study how to produce economically and massively biofuels from cellulose materials and plans to produce its interim report in the mid-March 2008.

Alongside these supportive policy actions, the government has allocated additional budgetary funds in 2008 to the ministries engaged in developing domestic capacity to generate energy from biofuels.[474] The Japanese government is also on its way to adopting strong measures for companies to meet CO_2 reduction targets by introducing a cap-and-trade system. Under this policy, companies are given limits on their CO_2 emissions and companies can buy and sell excess credits depending on their level of emissions.[475] Finally, in keeping with his promise that this G8 Summit would be the "Environmental Summit," Prime Minister Fukuda expressed his willingness to forge a carbon-neutral environment at the summit site at Hokkaido.[476] The International Media Centre at the site has been characterized as an "environmental showcase" and will be powered via solar panels and the utilization of stores of snow to run air conditioners.[477]

During this compliance period, Japan was very active in promoting less-emission intensive energy production. The Japanese government announced policies for research and development of renewable energy sources,

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[472] Bionenryo chiikiriyo model jissho jigyo (bio-diesel nenryo jigyo) no jigyo jisshi chiku ni tsuite (concerning areas for the development and verification project for regional bio-diesel fuel utilization model (project for bio-diesel fuels). 12 July 2007. Date of Access: 23 February 2008.
[473] Kankyo Shinbun. 28 November 2007. Date of Access: 23 February 2008.
http://eco.goo.ne.jp/news/files_daily/daily_20071128_861.html
[474] Heisei 20 nendo biomass kankei yosan gaisan yokyu no gaiyo (the outline of demand for bio-mass related budgetary appropriations in the 2008 fiscal year. September 2007. Date of Access: 23 February 2008.
http://www.maff.go.jp/j/biomass/b_strategy/dai10/pdf/data01.pdf
[475] Greens Say Carbon Caps Would Boost Japan's Economy, Agence France Presse, 16 March 2008. Date of Access: 13 June 2008.
http://news.yahoo.com/s/afp/20080313/sc_afp/japanclimatewarmingeconomy
[476] Japan Says Building Eco-Friendly Media Centre for G8 Summit, Agence France Presse, 7 March 2008. Date of Access: 13 June 2008.
http://afp.google.com/article/ALeqM5h3EXkp882RHFjXCm5K8vPCkb-zrA
[477] Japan Says Building Eco-Friendly Media Centre for G8 Summit, Agence France Presse, 7 March 2008. Date of Access: 13 June 2008.
http://afp.google.com/article/ALeqM5h3EXkp882RHFjXCm5K8vPCkb-zrA

implemented various biofuel schemes, encourage international cooperation, set aside funds for aiding developing countries in innovating their energy sectors, and is planning to implement a cap-and trade system for CO_2 emissions. Given all of these actions, Japan receives a score of +1 for this compliance period with regard to promoting less emission-intensive energy production.

Analyst: Maria Christofili

Japan **Score**

1C. Promote Less Emission-Intensive Energy Consumption +1

Japan registered a relatively high level of compliance with the commitment to promote less emission-intensive energy consumption. The government's regulatory policy on energy-efficiency follows the "top runner approach." The concept is based on identifying the highest possible energy-efficiency levels across product groups, and then establishing timetables for when producers need to be in compliance with them. Currently, there are 21 product groups covered by the programme, including passenger cars, trucks, air conditioners, refrigerators, freezers, rice cookers, microwaves, fluorescent lamp machines, electric heated toilet seats, television receivers, video tape recorders, DVD recorders, electronic calculators, magnetic disc apparatuses, copying machines, heaters, gas cooking machineries, gas water heaters, oil-fired water heaters, slot machines, and voltage transformers.[478] Alongside mechanical equipment, the law that introduced the programme includes measures for factories and offices (such as reporting on energy usage and designation of energy managers), and measures for houses and buildings (submission of reports on strategies for energy saving in building new buildings and reforming buildings). These energy-efficiency standards are periodically revised when the government finds it necessary.

The Japanese Cabinet approved a bill on 4 March 2008 that adds onto these measures for commercial and residential buildings. The Bill for the Revision of the Act Concerning the Rational Use of Energy calls for "stepped-up" measures in both industrial/commercial and residential facilities.[479] In terms of industrial and commercial spaces, the Bill calls for energy consumption control for both businesses and franchises.[480] Stepped-up security for large residences and buildings; reports on energy-saving measures by owners of

[478] Top runner kijun haayawakari (A quick guide to the top runner standards), September 2006. Date of Access: 3 February 2008.
http://www.eccj.or.jp/toprunner/pamph/06/index.html
[479] Bill for Revision of the Act Concerning the Rational Use of Energy, METI, 4 March 2008. Date of Access: 13 June 2008.
http://www.meti.go.jp/english/newtopics/data/nBackIssue20080304_07.html
[480] Bill for Revision of the Act Concerning the Rational Use of Energy, METI, 4 March 2008. Date of Access: 13 June 2008.
http://www.meti.go.jp/english/newtopics/data/nBackIssue20080304_07.html

small- to medium-sized residences and buildings above a certain size; adoption of energy-saving measures by businesses engaged in the construction and sale of residences; and indication of energy-saving performance of residences and buildings are the new protocols put in place for residential building by the Bill.[481] Most of these regulations will take effect 1 April 2009, with the remainder coming on board by 1 April 2010.

Japan was active in promoting less emission-intensive energy consumption prior to this Bill during the compliance period as well, embarking on a number of initiatives. On 2 August 2007, the MOE established a new programme to support initiatives introducing measures against climate change in the public service sector aimed at accelerating the spread of the introduction of energy-saving equipment and the use of renewable energy. On 29 November 2007, it introduced a policy to promote national energy savings that included a competition in which public and private hospitals and social welfare facilities were invited to apply to be pronounced model projects on the basis of their energy-savings.[482] Further, the policy also included a request to households and offices to purchase energy efficient appliances and lower indoor air temperatures. In addition, the MLIT has approved particular construction machines as energy-efficient, and introduced a programme to finance SMEs that choose to purchase them.[483] In terms of its own emissions, the MLIT created a study group on 5 November 2007 to discuss GHG emission reduction targets and measures for office buildings across industries.[484]

In terms of transport, the Japanese government launched several policy actions targeting the automobile sector. On 2 July 2007, the government strengthened the standards for passenger cars and trucks.[485] As part of this effort, on 3 December 2007, the MOE and MLIT introduced a system in which a sticker would be placed on cars, heavy trucks and buses conforming to the Emission Standard of Automobile NOx/PM Law.[486] This is a follow-up to the comprehensive package of fuel-efficiency standards released in December

[481] Bill for Revision of the Act Concerning the Rational Use of Energy, METI, 4 March 2008. Date of Access: 13 June 2008.
http://www.meti.go.jp/english/newtopics/data/nBackIssue20080304_07.html
[482] Shoenergy kokuminundo no kyoka ni tsuite (Regarding reinforcement of the national energy-saving movement), 29 November 2007. Date of Access: 23 December 2007.
http://www.meti.go.jp/press/20071129001/20071129001.html
[483] Kensetsukikai no CO2 haishutsuryo o teigen shimasu (Reducing CO2 emissions from construction machines), 2 November 2007. Date of Access: 23 December 2007.
http://www.mlit.go.jp/kisha/kisha07/01/011102_.html
[484] The amount of GHG emissions in the commercial, service and office sectors in 2005 was 44.6 % higher than that of 1990. Offisu biruno CO2 haishutsu sakugen no suishin hosaku ni tsuite (Regarding measures to promote reduction of CO2 emission from office buildings), 21 December 2007. Date of Access: 23 December 2007.
http://www.mlit.go.jp/kisha/kisha07/01/011221_.html
[485] Joyoshato no atarashi nenpikijun no sakuteinitsuite (Concerning the establishment of the new energy efficiency standards for automobiles), 2 July 2007. Date of Access: 3 February 2008.
http://www.meti.go.jp/press/20070702001/20070702001.html
[486] Sticker system for cars conforming to Emission Standard of Automobile NOx/PM Law, MOE and MLIT, 3 December 2007. Date of Access: 22 February 2007.
http://www.env.go.jp/en/headline/headline.php?serial=641

2006, which considered 15 to 20 different vehicle weight classes and in introduced a fine on automakers that fail to meet the new standards. Overall, it targeted a 20 % improvement relative to 2004 by 2015.

In terms of home appliances, METI has launched several initiatives that seek to mobilize consumers behind energy-efficient products. On 1 October 2007, the METI started to use biofuel in its official cars in order to promote its usage.[487] More significantly, on 30 July 2007, METI introduced a two-month "Summer Energy-Saving Campaign" in order to promote energy savings among consumers.[488] On 17 October 2007, it helped to establish a forum on the promotion of energy efficient home appliances including manufacturers, retailers, consumer groups, and the MOE, aimed at reversing the growth of household energy consumption.[489] From 23 November to 2 December 2007, the forum held an intensive campaign that promoted energy efficiency labeling and provided information on energy efficient home appliances to consumers. During 2008, the Forum will send lecturers to 440 sites in Japan to teach how to save energy at home. Two large energy education events for consumers were also conducted in Japan in 2008: the Energy Environment Exhibition 2008[490] and the Agency for Natural Resources and Energy's annual Education on Energy Fair, this year titled, "Family Energy Festival 2008."[491]

The Government also established a policy requesting a wide range of actors including food and beverage retailers, schools, hotels, and hospitals to manage energy use appropriately and on 31 March 2008 set out guidelines for energy-saving. These guidelines were issued in cooperation with a variety of Government ministries.[492]

Tying innovation in these individual sectors together was the finalization of the "Cool Earth-Innovative Energy Technology Programme" on 5 March 2008. Under this initiative, 21 technologies were selected to be given higher priority; an energy technology innovation roadmap through 2050 was established; and ways to promote more international cooperation within the

[487] Koyosha eno baio gasoline no donyu ni tsuite (Regarding introduction of biogasoline into official cars), 28 September 2007. Date of Access: 23 December 2007.
http://www.meti.go.jp/press/20070928006/20070928006.html
[488] Natsuno shonenergy campaign ni tsuite (Regarding the campaign for energy saving in the summer season), 30 July 2007. Date of Access: 23 December 2007.
http://www.meti.go.jp/press/20070730003/20070730003.html
[489] Shoene kaden fukyu sokushin forum no setsuritsu oyobi kongono katsudo naiyo ni tsuite (Regarding the establishment of the forum on promotion of energy efficient electric home appliances and its activities), 18 October 2007. Date of Access: 23 December 2007.
http://www.meti.go.jp/press/20071018009/20071018009.html
[490] 32nd Energy and Environment Exhibition: ENEX2008, 2008. Date of Access: 30 May 2008.
http://www.enex.info/language/index.html
[491] Family Energy Festival 2008, METI, 14 March 2008. Date of Access: 30 May 2008.
http://www.meti.go.jp/english/newtopics/data/nBackIssue20080314_07.html
[492] News Release, METI, 31 March 2008. Date of Access: 30 May 2008.
http://www.meti.go.jp/press/20080331014/01_press.pdf

field of energy technology innovation were sought.[493] A number of the technologies selected for more research and development were related to demand side consumption. They included: intelligent transport systems, fuel cell vehicles, plug-in hybrid/electric vehicles, innovative iron and steel-making processes, innovative material production/processing, high-efficiency houses and buildings, next generation high-efficiency lighting, stationary fuel cell ultra high-efficiency heat pumps, high-efficiency information devices and systems, and housing energy management systems (HEMS)/building energy management systems (BEMS)/local-level energy management systems (EMS).[494]

At the international level, the Japanese government has assisted other Asian nations to become more energy-efficient by transferring its energy efficient technologies and knowledge on energy savings.[495] On 27 September 2007, for instance, at the Japan-China forum on energy-saving and the environment, Japan and China agreed to cooperate in several projects for energy-saving and the environment, including the project of increasing energy-saving in Textile factories in China.[496]

Based on these initiatives across a range of sectors, the Japanese government complied with the commitment to reduce the emission-intensity of domestic energy consumption as set out in the last G8 Summit. However, while its fuel-efficiency standards are among the strongest in the OECD, other energy-efficiency initiatives are of a voluntary nature and seem weak and less innovative. As a result, while full compliance has been achieved, only time will determine whether the various initiatives produce real results.

Analyst: Takashi Sagara

Addendum:

- On 22 June 2008, the *NIKKEI Financial Daily* reported that the Japanese government is planning to promote household use of solar power systems by introducing subsidies and tax breaks. According to the paper, details of subsidies and tax cuts would be decided by the end

[493] Cool Earth-Innovative Energy Technology Programme, METI, 5 March 2008. Date of Access: 30 May 2008.
http://www.meti.go.jp/english/newtopics/data/pdf/031320CoolEarth.pdf
[494] Cool Earth-Innovative Energy Technology Programme, METI, 5 March 2008. Date of Access: 30 May 2008.
http://www.meti.go.jp/english/newtopics/data/pdf/031320CoolEarth.pdf
[495] Shigenenergycho mail magazine Vol.2 (Email Magazine of the Agency for Natural Resource and Energy Vol.2), 19 September 2007. Date of Access: 23 December 2007.
http://www.enecho.meti.go.jp/mailservices/mail_02.html
[496] Dainikai nicchu shoenergy/Kankyo forum niokeru nicchukan no kyoryoku goi jikog ni tsuite (Regarding items agreed between Japan and China in the second comprehensive energy and environmental forum between Japan and China), 27 September 2007. Date of Access: 23 December 2007

of August, the deadline for budget requests by government offices for the next fiscal year, starting on 1 April 2009.[497]

Japan	Score
1D. Support for Climate Adaptation in DCs	**0**

Japan was found to be in partial compliance with its commitment to aid developing countries mitigate and adapt to global climate change. Among other things, the Japanese government took concrete actions to improve weather data gathering and sharing, and offered financial aid to developing countries for climate adaptation, primarily through Official Development Assistance (ODA). However, the Government's actions have not included new measures to help developing countries strengthen their own adaptation capacity. However, given the reduction of the ODA fund, the effectiveness of this and other programs are still unknown.

With superior level of technology in East Asia, Japan is the largest collector of climate data in the region. The Japan Meteorological Agency continued to act as the major monitor for greenhouse gas, atmosphere condition and surface climate in the region. On 1 June 2007, the World Date Centre for Greenhouse Gases (WDCGC) issued the WDCGG Data Submission and Dissemination Guide to improve archive volume and quality in accordance with the World Meteorological Organization (WMO) Global Atmosphere Watch (GAW) Strategic Plan.[498] On 31 August 2007, the Japanese Meteorological Agency (JMA) and the Japan Aerospace Exploration Agency (JAXA) joined to make the imageries of Japanese Meteorological Satellite MASTA available to the public through a website "Sentinel Asia," to provide information for disaster prevention and mitigation in the region.[499] On 24 October 2007, the Japanese Government requested a 30 % budget increase for an international monitoring system and research on global climate change.[500]

On 8 December 2007, Fukuda reaffirmed the government's commitment to financially assisting developing countries to adapt to climate change, including small island developing states (SIDS).[501] As of 5 May 2008, about

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[497] Japan to Promote Solar Power for Households: Nikkei, Reuters, (Tokyo), 22 June 2008. Date of Access 3 July 2008. http://www.reuters.com/article/environmentNews/idUST20585820080622.
[498] Work that could contribute to the improved understanding of current and historical climate, and its impacts, UNFCCC, 24 October 2007. Date of Access: 14 December 2007. http://unfccc.int/resource/docs/2007/sbsta/eng/misc23.pdf
[499] MTSAT imagery has become available through Sentinel Asia website, Japan Meteorological Agency, 3 September 2007. Date of Access: 20 December 2007. http://www.jma.go.jp/jma/jma-eng/satellite/NEWS/sentinel.html
[500] Gov't seeks 18 % more funding to fight global warming, Mainichi Daily News, (Japan), 25 October 2007. Date of Access: 15 December 2007. Nexis UK.
[501] Fukuda, Ban agree on helping developing nations over climate change, Kyodo News (Japan), 8 December 2007. Date of Access: 13 December 2007. http://www.japantoday.com/jp/news/422621; See also, Govt eyes ways to help island nations

25.7 billion yen was granted by the Ministry of Foreign Affairs (MOFA) to foreign governments either bilaterally or through international organizations in areas directly related to food production, infectious diseases, water supplies, and disaster preventions since the last G8 Summit. For example, the MOFA approved a loan of 42.9 billion yen to Iraq in July, and 22.8 billion yen to India in August for water supply projects.[502] A further 6.3 billion yen was lent to China to support its fight against desertification in Qinghai.[503] A loan of 7.6 billion yen was provided to the Philippines for the third phrase of its hazard mitigation project, and 11.8 billion yen for increasing food production in December 2007.[504] It granted 1.8 billion yen to Bangladesh and Sri Lanka to improve their meteorological information system for better disaster prevention and management, and other countries received financing for combating infectious diseases, reducing their vulnerabilities to extreme weather and enhancing irrigation.[505]

Despite these efforts, the Japanese ODA grants were significantly reduced in the second half of the compliance period, with funding for food production and disaster prevention halted. While efforts were more focused on infectious disease prevention and water supply projects, the amount of aid given was significantly lower as compared to the first six months after the Heiligendamm Summit.[506] Instead, the Government announced plans to launch the Climate Change Fund on 5 May 2008. This fund would provide the basis for "a more holistic program that includes activities in mitigation and adaptation as well as financing projects."[507] This includes the promotion of low-carbon emission technology as well as addressing "cross-cutting social vulnerability issues related to climate change such as changes in livelihood, resettlement, and health impacts."[508] Prime Minister Yasuo Fukuda promised a 10 billion yen Climate Change Loan over the next five years to introduce

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tackle global warming, The Daily Yomiuri, (Tokyo), 23 November 2007. Date of Access: 15 December 2007. Nexis UK.

[502] Exchange of Notes in Fiscal Year 2007, Loan Aid by Date, the Ministry of Foreign Affairs of Japan, last updated on 20 November 2007. Date of Access: 14 December 2007. http://www.mofa.go.jp/policy/oda/note/loan-7.html

[503] FY2007 Japanese ODA Loan to China, Ministry of Foreign Affairs of Japan, 5 December 2007. Date of Access: 14 December 2007. http://www.mofa.go.jp/announce/announce/2007/12/1176563_840.html

[504] Exchange of Notes in Fiscal Year 2007, Loan Aid by Date, the Ministry of Foreign Affairs of Japan, last updated on 20 November 2007. Date of Access: 21 December 2007. http://www.mofa.go.jp/policy/oda/note/loan-7.html

[505] Exchange of Notes in Fiscal Year 2007, Grant Aid by Date, the Ministry of Foreign Affairs of Japan, last updated on 21 December 2007. Date of Access: 2 January 2008. http://www.mofa.go.jp/policy/oda/note/loan-7.html. Loans for areas like poverty reduction, food aid for unspecified reasons, general healthcare facilities, education and rural electrification are excluded. (Annex I)

[506] Exchange of Notes in Fiscal Year 2007, Grant Aid by Date, Ministry of Foreign Affairs, 17 March 2008. Date of Access: 5 May 2008. http://www.mofa.go.jp/policy/oda/note/loan-7.html

[507] ADB to Launch New Climate Change Fund, Asian Development Bank, 5 May 2008. Date of Access: 5 May 2008. http://www.adb.org/Media/Articles/2008/12474-asian-climates-changes/default.asp

[508] Japan $10B Climate Change Loans to Africa Seen Kyoto, Down Jones International News, 18 May 2008.

clean technology in Africa and develop cereal crops that are more resistant to high temperatures and dry weather.[509]

Internationally, trade in emissions credits serves as an important financing mechanism for facilitating resource transfers to developing countries. However, there is an internal dispute between Japanese ministries over whether emissions-trading is effective and should be supported. The MoE called the system an "extremely effective approach", embracing the idea of expanding the system; the Financial System Council, an advisory panel to the Prime Minister Fukuda, also favoured the expansion of the system and saw it as a business opportunity if the ban on emission trading on Japanese stock markets is to be lifted.[510] However, METI took the view that the trading of emission credits would "dampen" the cooperative efforts in cutting emissions. Alongside one of Japan's largest companies, Nippon Keidanren, METI opposed the plan to require companies to pay for emissions credits and instead pushed for a sectoral approach in which companies from different countries in the same industry join together to cut their joint emissions. This proposition would be in effect more advantageous to Japanese corporations as it makes it easier for them to sell Japanese green technology to developing countries, instead of buying credits from them.[511]

Prime Minister Fukuda also attended the Food and Argiculture Organization's (FAO) food summit in Rome in June 2008, noting that "In some cases, biofuel production is in competition with the food supply," and that leaders "need to ensure that biofuel production is sustainable."[512] Prior to this, Fukuda, joined by New Zealand's premier Helen Clark, recognized the acute impact soaring food prices have had on the developing world[513] and ensured that the food crisis would be on the G8 agenda.[514]

Despite the Japanese government's facilitation of the generation and diffusion of information about climate impacts in vulnerable countries and supported the implementation of adaptation attempts particularly by the ODA, it has shown limited effort in building capacity in developing countries

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[509] Japan $10B Climate Change Loans to Africa Seen Kyoto, Down Jones International News, 18 May 2008.
[510] Industry welcomes U.N. climate accord, The Daily Yomiuri, Tokyo, 19 December 2007. Date of Access: 2 January 2008. Nexis UK.
[511] Industry welcomes U.N. climate accord, The Daily Yomiuri, Tokyo, 19 December 2007. Date of Access: 2 January 2008. Nexis UK.
[512] Leaders Clash on Biofuels at Food Summit, Associated Press, 4 June 2008. Date of Access: 13 June 2008. http://www.cnn.com/2008/TECH/science/06/04/biofuels.Rome/
[513] Japan, New Zealand Voice Concern Over Soaring Food Prices, Agence France Presse, 14 May 2008. Date of Access: 13 June 2008. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21_T4059892093&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T4059892096&cisb=22_T4059892095&treeMax=true&treeWidth=0&csi=10903&docNo=1
[514] U.N. Food Body Chief Hopes Fukuda to Play Big Part in Food Crisis, Japan Economic Newswire, 15 May 2008. Date of Access: 13 June 2008. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21_T4059906506&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T4059906509&cisb=22_T4059906508&treeMax=true&treeWidth=0&csi=144760&docNo=1

themselves to adapt to climate change. Newly initiated funds and programs could be promising however they do not cover the significant reduction of the ODA. Thus, Japan is in partial compliance with its commitment to support climate adaptation in developing countries and is awarded a score of 0.

Analyst: Kwok Hong Wong

Japan	**Score**
1E. Reducing GHG Emissions by Curbing Deforestation	**+1**

Curbing deforestation is a relatively new issue on the international climate agenda, including within the G8 process. It is perhaps not surprising then, that most—though not all—of the actions reported here are of a more declaratory nature. In this regard, Japan has given numerous statements of support— including that sustainable forest management will be a key issue for Japan's G8 presidency[515]—pledged funds and offered expertise to help in the international efforts to reduce deforestation in developing countries.

On 9 September 2007, Japan reaffirmed the commitments it made at the G8 Heiligendamm Summit by signing the APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development,[516] and on 21 November 2007, it endorsed the Singapore Declaration on Climate Change, Energy and the Environment[517] both of which include a commitment to reduce deforestation. The same day, then Prime Minister Shinzo Abe issued a joint statement with his Australian counterpart that "reducing emissions from deforestation and forest degradation is a key component of global action on climate change."[518] Furthermore, the two governments pledged to cooperate to develop an integrated forest and carbon monitoring systems towards a Global Carbon Monitoring System (GCMS). Japan also issued a joint statement with the Lao People's Democratic Republic in May 2008, confirming both nations' intention to focus on and support relevant international frameworks pertaining, inter alia, to sustainable forest management.[519]

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[515] Sustainable Management of Forests Priority of Next G8 Summit, Japanese PM Fukuda Announced, World Bank, 20 February 2008. Date of Access: 19 March 2008. http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21655023~pagePK:34370~piPK:34424~theSitePK:4607,00.html

[516] Sydney APEC Leaders' Declaration on Climate Change Energy Security and Clean Development, APEC, 9 September, 2007. Date of Access: 26 December 2007. http://www.apec.org/apec/leaders__declarations/2007/aelm_climatechange.html

[517] Singapore Declaration on Climate Change, Energy and the Environment, The Ministry of Foreign Affairs of Japan, 21 November, 2007. Date of Access: 26 December 2007. http://www.mofa.go.jp/region/asia-paci/eas/dec0711.txt

[518] Joint Statement by Japan and Australia on the Enhancement of Cooperation on Climate Change and Energy Security, The Ministry of Foreign Affairs of Japan, 9 September, 2007. Date of Access: 27 December 2007. http://www.mofa.go.jp/region/asia-paci/australia/joint0709.html

[519] Joint Announcement on Enhanced Cooperation in Environment and Climate Change Issues between Japan and the Lao People's Democratic Republic, The Ministry of Foreign

On 30 October 2007, the government reaffirmed its willingness to cooperate in the fight against illegal logging, promote adequate land-use management and implement the Non Legally Binding Instrument on Forests, agreed at United Nations Forum on Forests 7 (UNFF7).[520] This was followed by the Japanese Cabinet's 27 November 2007 approval of the Third National Biodiversity Strategy of Japan which outlined policies the Government committed to including participating in international forums designed to promote sustainable management of forests and promoting "bilateral technical and financial assistance and multilateral cooperation through international organizations for forest conservation and reforestation, and measures against illegal logging in developing countries."[521]

A further indication of Japan's commitment to this issue is the number of conferences and symposia it has hosted on sustainable forest management and forest resources monitoring. These included co-hosting the 7th Annual Meeting of the Asia Forest Partnership (AFP) with Indonesia in November 2007;[522] hosting the second round of the International Experts Meeting on Illegal Logging in March 2008, where Japan again reiterated it's commitment as G8 President to tackle illegal logging;[523] hosting the Japan-Asian REDD Seminar in March 2008;[524] and finally, hosting the 2nd GEOSS Asia-Pacific Symposium in April 2008.[525]

In terms of material support, Japan has pledged US$10 million for the World Bank's Forest Carbon Partnership Facility (FCPF).[526] First made on 21 October 2007, this pledge was restated on 22 November 2007 at the third

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Affairs of Japan, 22 May 2008. Date of Access: 10 June 2008. http://www.mofa.go.jp/region/asia-paci/laos/joint0805.html

[520] Statement by Ambassador Takahiro Shinyo, Deputy Permanent Representative of Japan to the United Nations, On Agenda Item 54: Sustainable Development, The Ministry of Foreign Affairs of Japan, 30 October, 2007. Date of Access: 27 December 2007. http://www.mofa.go.jp/announce/speech/un2007/un0710-9.html

[521] Sustainable Management of Forests Priority of Next G8 Summit, Japanese PM Fukuda Announced, World Bank, 20 February 2008. Date of Access: 19 March 2008. http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21655023~pagePK:34370~piPK:34424~theSitePK:4607,00.html

[522] The 7th Meeting of Asia Forest Partnership: 12-15 November 2007, Yokohama, Japan. Date of Access: 9 June 2008. http://www.asiaforests.org/files/_ref/events/AFP7/AFP7-Report.htm

[523] The Second Round of the International Experts Meeting on Illegal Logging: Chairpersons' Summary, The Ministry of Foreign Affairs of Japan, 13 February 2008. Date of Access: 1 June 2008. http://www.mofa.go.jp/policy/environment/forest/meet0803.html

[524] Japan - Asia REDD Seminar, Institute for Global Environmental Strategies, 24-25 March 2008. Date of Access: 1 June 2008. http://www.iges.or.jp/en/fc/activity_20080324reed.html

[525] 2nd GEOSS Asia-Pacific Symposium concludes in Tokyo, GEO Portal, 14-16 April 2008. Date of Access: 11 June 2008. http://www.geoportal.org/web/guest/focus_on

[526] Statement by the Hon. Otohiko Endo, Senior Vice Minister of Finance of Japan At the 76th Meeting of the World Bank/IMF Joint Development Committee Washington, D.C., 21 October 2007. Date of Access: 27 December 2007. http://www.mof.go.jp/english/if/wb_imf_071021_st.htm

East Asia Summit as part of Japan's Initiative on the Environment[527] and again on 11 December 2007 during the United Nations Climate Conference on Bali, where the FCPF was launched.[528] Japan also signed the Yokohama Action Plan at the 4th Tokyo International Conference on African Development (TICAD IV) in May 2008. This Plan includes a pledge to support information sharing to encourage sustainable forest management in response to REDD and to help introduce appropriate measures to reduce deforestation in Africa.[529]

As part of Japan's Initiative on the Environment, the government has further pledged to assist global forest management by sharing data gathered by its ALOS satellite.[530] To date, Japan has provided data and training to Brazil to help monitor illegal logging, with a projected budget of 200 million yen for this project.[531] In February 2008, the Japanese Government agreed to set up a project on forest resources monitoring using the latest satellite technology in Indonesia, in collaboration with Indonesian authorities.[532] Given this work, Japan's Environmental Minister declared that Japan is building a collection of best practices, technology maps, and tools to identify the co-benefits of projects in many areas, including forest conservation and wishes to assist developing countries in utilizing these tools.[533]

Japan is a major consumer of tropical wood and over the years has participated in several international agreements aimed at managing and monitoring trade in forest resources. This year, Japan has participated in the funding of new projects and activities for the conservation and sustainable management, use, and trade of tropical forest resources through its

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[527] Media FAQ : Japan's Initiative on the Environment, The Ministry of Foreign Affairs of Japan, 22 November 2007. Date of Access: 27 December 2007. http://www.mofa.go.jp/announce/media/2007/11/1122.html

[528] Forest Carbon Partnership Facility Launched At Bali Climate Meeting, The World Bank, 11 December, 2007. Date of Access: 26 December 2007. http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21582088~pagePK:34370~piPK:34424~theSitePK:4607,00.html

[529] TICAD IV: Yokohama Action Plan, The Ministry of Foreign Affairs for Japan, 30 May 2008. Date of Access: 1 June 2008. http://www.mofa.go.jp/region/africa/ticad/ticad4/doc/actoin.pdf

[530] [530] Media FAQ : Japan's Initiative on the Environment, The Ministry of Foreign Affairs of Japan, 22 November 2007. Date of Access: 27 December 2007. http://www.mofa.go.jp/announce/media/2007/11/1122.html

[531] Hirokiko Nakamura, Satellite to spy on illegal logging in Amazon, Asahi Shimbun, 14 February 2008. Date of Access: 1 June 2008. http://www.asahi.com/english/Herald-asahi/TKY200802140065.html

[532] Japan's initiative to address deforestation & forest degradation, Forestry Agency and Ministry of Agriculture, Forestry and Fisheries, 1 May 2008. Date of Access: 1 June 2008. http://www.itto.or.jp/live/Live_Server/3845/ITTO_SFM_CC_sato.pdf; Yuichiro Sato. Japan's initiative to address deforestation & forest degradation. 24 March 2008. Date of Access: 10 June 2008. http://www.iges.or.jp/en/fc/pdf/20080324reed/2.Yuichi_Sato_Forestry_Agency.pdf; and Yuichiro Sato. COP13, COP/MOP3 Deno Shinrinkanren no Giron Ni Tsuite (Concerning discussions in COP13 and COP/MOP3). March 2008. Date of Access: 10 June 2008. http://www.jifpro.or.jp/5promotion/disclosure/I-Forum_H19_P03_Sato.pdf

[533] Japanese environment minister addresses G8 meeting on climate change, China View, 25 May 2008. Date of Access: 26 May 2008. http://news.xinhuanet.com/english/2008-05/25/content_8248503.htm

membership of the International Tropical Timber Organization (ITTO), which is based in Japan.[534] On 31 August 2007, the Government approved the International Tropical Timber Agreement from 2006, which should further assist in reducing trade of illegal timber.[535] However, on 20 August 2007, the government signed a free trade pact with Indonesia that includes palm oil, which may negate this support for international efforts to reduce deforestation. The production of palm oil in Indonesia is linked to extensive deforestation, an issue the pact does not directly address.[536] Japan, through its Ministry of Environment, has also launched a domestic campaign against illegal wood in April 2008 to raise public awareness about diminishing forest resources.[537]

In terms of managing domestic forests, Japan has a long-standing awareness of domestic reforestation, stemming from the post World War II era. However, as the goal of post World War II reforestation was timber rather than natural habitat, these reforested areas degrade when not managed properly. And as the Japanese forest industry has been declining, labour shortage led to management problems and forest degradation.[538] There are no new initiatives since June 2007 to address this degradation, at least not policy actions by the central government. However, several local governments are involved in forest regeneration projects, initiated in the Kochi Prefecture[539] and adopted by other prefectures. [540] The experience of this local-level campaign was shared with the international community at the Bangkok Climate Talks in April 2008.[541]

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[534] US$10.1 million in new funds for tropical forests, International Tropical Timber Organization, 10 November 2007. Date of Access: 27 December 2007. http://www.itto.or.jp/live/PageDisplayHandler?pageId=217&id=3693

[535] Deposit of the Instrument of Acceptance of the International Tropical Timber Agreement, 2006, The Ministry of Foreign Affairs of Japan, 31 August. Date of Access: 27 December 2007. http://www.mofa.go.jp/announce/announce/2007/8/1175313_832.html

[536] Indonesia, Japan sign free trade pact, Forbes, 20 August, 2007. Date of Access: 26 December 2007. http://www.forbes.com/afxnewslimited/feeds/afx/2007/08/20/afx4034139.html

[537] Japan: Ministry of Environment launches campaign against illegal wood, ITTO Tropical Timber Market Report, 30 April 2008. Date of Access: 1 June 2008. http://www.illegal-logging.info/item_single.php?item=news&item_id=2664&approach_id=

[538] Forest Power: "Forests Help People. People Help Forests." - Collaboration between the Kochi Prefectural Government and Companies to Restore Forests, Japan for Sustainability. Date of Access: 31 December 2007. http://www.japanfs.org/en/public/gov_15.html; Kinosangyozkukuri to mori no saisei plan (Regarding creation of wood industry and restoration of forests), March 2007. Date of Access: 12 January 2008. http://www.pref.kochi.jp/~seisaku/plan/H18plan/18plan.pdf

[539] Kochi Prefecture Launches Innovative Forest Regeneration Project, Japan for Sustainability, 5 February, 2007. Date of Access: 31 December 2007. http://www.japanfs.org/db/1623-e

[540] Forest Power: "Forests Help People. People Help Forests." - Collaboration between the Kochi Prefectural Government and Companies to Restore Forests, Japan for Sustainability. Date of Access: 31 December 2007. http://www.japanfs.org/en/public/gov_15.html

[541] Tutsuya Watanabe, Japan's National Experience from Treatment of Forest under KP, Bangkok Climate Talks 2008, 2 April 2008. Date of Access: 9 June 2008. http://www.google.com/url?sa=t&ct=res&cd=3&url=http%3A%2F%2Funfccc.meta-fusion.com%2Fkongresse%2FAWG_08%2Fdownl%2F0402_1000_p2%2FLULUCF_JAPAN.pdf&ei=fKxNSMeFIovYeaHa9cgE&usg=AFQjCNGV7Wsq1Bvz-_63wIosLEMtk3AozA&sig2=IvZx3hls9dwo-MxT-H1q0A

While there are no signs that the Japanese government is seriously addressing forest degradation at a domestic level, throughout the past year, the Japanese government has kept the issues of deforestation, illegal logging, and sustainable forest management in the forefront of international discussions. It continues to provide considerable support for international ventures to reduce deforestation in developing countries and continues to be part of international efforts to better regulate the timber industry. Therefore it receives a score of +1.

Analyst: Ruth Brandt

The Russian Federation

Background

Russia's compliance with its G8 commitments on climate change and energy has been mixed but weak overall. In none of the five commitments has Russia been awarded a score above 0, indicating a weak policy framework with regards to climate change in which government actions did not significantly go beyond policy statements and the announcement of aspirational goals. Russia's progress in meeting its commitment to stabilize GHG concentrations was limited to one policy action – introducing legislative initiatives to promote the Joint Implementation (JI). Although there was progress in this area, Russia is actually not required to make significant reductions under the Kyoto Protocol because carbon emissions are measured against a baseline equivalent to emissions in 1990 and therefore it did not take significant action to meet its commitment to stabilize GHG concentration.

Russia made no significant progress in promoting less emission-intensive energy production. The vast potential for developing renewable energy continues to be underexploited due to the lack of supportive regulatory schemes. [542] While it is participating in multilateral efforts to address the issue, the Government has not undertaken any significant new federal measures, as policy actions were limited to a few legislative policy proposals, periodic public statements, and the adoption of non-binding targets. Furthermore, existing national programmes remain under-funded and no ambitious carbon reduction targets have been assumed. In terms of providing assistance for adaptation in developing countries, growing commodity prices and the fact that Russia has made the transition from an aid receiving to an aid giving country has in principle enabled it to do more. However, few concrete policy actions that increase the flow of investment to adaptation projects have been recorded. Finally, its commitment to reduce emissions by curbing deforestation did not go beyond impressive policy statements which failed to reflect on a number of indicators. Though forest covers are increasing

[542] EBRD Renewable Energy Initiative - Russia Country Overview, EBRD website. Date of Access: 2 July 2008.
http://www.ebrdrenewables.com/sites/renew/countries/Russia/default.aspx

in Russia, there are national plans to develop the forest industry that would increase the volume of timber procurement.

Analysts: Ina Zharkevich, Seren Tang, and Christopher Wright

Russian Federation	**Score**
1A. Stabilise GHG Concentrations	**0**

Russia's progress in meeting its commitment to stabilise GHG concentrations has been partial and limited predominantly to one policy area – introducing legislative initiatives to promote Joint Implementation (JI). Despite the significant progress in this sphere, Russia has failed to take "strong and early action" in order to meet its commitment to stabilise GHG concentrations, and unlike many other G8 members, has not formulated long-term policy goals or strategies for reducing domestic GHG emissions.

It is important to point out that Russia's progress in development of legislative base for realization of JI projects is impressive and deserves due attention. The whole of the follow-up year to Heiligendamm summit produced evidence of consistent work in the direction of the most efficient utilization of the mechanism of Kyoto protocol. Nevertheless, taking into consideration the rising level of aggregate emissions, explained by the revival of the economy, the absence of a normative position towards GHG emission in the long run questions the ability of Russia to effectively address the problem.

The Russian government's current position on the reduction of GHG emissions should be understood within the context of being a party to the Kyoto Protocol, under which Russia needs to make very few reductions in GHG emissions because the baseline for emissions is 1990. The severe economic recession of the 1990s and the concurrent slowdown of industrial activity caused a 30 % drop domestic GHG emissions. Despite recent growth rates, Russia will be operating with a surplus of 3.2-3.7 bill tons of CO2-equivalents in 2008-1012, which can be translated into excess emission credits under Kyoto's flexible mechanisms.[543] As a result, Russia approaches climate policy and the reduction of GHG emissions as an investment programme. On 24 May 2007, Chairman of the Federation Council S.M. Mironov, stated, with reference to Russia, that "we must get involved in [carbon trading], using all competitive advantages that we have at our disposal… Implementation of the Protocol provisions must bring benefits not only to our government but also to business."[544]

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[543] Russia and the Kyoto Protocol: how to meet the Challenges and not to miss the Chances, M.A. Yulkin, Environmental Investment Centre. Date of Access: 24 December 2007. http://www.eel.nl/documents/cms_eel_105_1_Kyoto%20Article.pdf.

[544] Speech made by Chairman of the Federation Council S.M. Mironov at the Conference "Russia and the Kyoto Protocol", St. Petersburg, May 24 2007. Date of Access: 27 December 2007. http://www.ncsf.ru/conf2007/materials/conf/eng/01%2000%20Mironov%20Federation%20Council%20eng.pdf

In this light, the absence of long-term policy goals and commitments are more indicative of Russia's partial and inconsistent adherence to the obligations it has undertaken during Heiligendamm Summit. Although Russia has reiterated its commitment to reduce GHG emissions in the Sydney APEC Leaders' Declaration,[545] it has neither set any specific targets within definite timeframes nor formulated a long-term national strategy to deal with climate change, or reduce GHG emissions. Moreover, Russia sided with the United States, Canada, and Japan during the UN Climate Change Conference in Bali on the issue of rejecting the EU proposal of a 25-40 % cut in GHG emissions by 2020, arguing that it was overly prescriptive and that it was attempting to prejudice the outcome of the process.[546]

In 2008, Russia has participated in a series of talks at the international level on the problem of global warming and future of the Kyoto protocol. In April 2008, then President Putin of Russia, and Prime Minister Fukudo of Japan stated their determination to cooperate in the sphere of climate change and agreed that the post-Kyoto agreement should include all the major GHG emitters, such as USA, China and India, under its framework. However, Medvedev, newly elected president of Russia, who was present at the talks and who will represent Russia at the G8 summit in Japan, expressed disagreement with the Japanese side on the question of the method of allocating emission quotas. While Japan favours the industrial sector approach, the Russian side expressed preference for the nation-wide system of quotas. [547]

Russia's position on future post-Kyoto arrangements is notable. In 2005, Russia made a proposal, which was reworked in 2007, that non-Annex 1 parties take voluntary commitments to reduce GHG emissions, which reflects Russia's vision of post-Kyoto arrangements based on principles of "common but differentiated responsibilities and respective capabilities", "fair burden sharing", "inclusiveness", and "realistic and achievable commitments".[548] Russia will push for negotiations on future commitments for the post-Kyoto era which are based not so much on climate change considerations, as "national interests and priorities of socio-economic development".[549] On 7

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[545]Sydney APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development, Sydney, Australia, 9 September 2007. Date of Access: 22 December 2007. http://www.kremlin.ru/interdocs/2007/09/07/0811_type72067_143514.shtml

[546] Summary of the thirteenth conference of parties to the UNFCCC and third meeting of Parties to the Kyoto Protocol, Earth Negotiations Bulletin, Vol. 12 No. 354, International Institute for Sustainable Development, 18 December 2007. Date of Access: 27 December 2007. http://www.iisd.ca/vol12/enb12354e.html

[547] Japan and Russia hold talks on the problem of climate change, Point Carbon, Tokyo, 29 April 2008. Date of access: 7 June 2008. http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article28015-304.html

[548] Proposal on Voluntary Commitments, Russian Federation, Presentation, 26-th Meeting of UNFCCC subsidiary bodies, Bonn, 11 May 2007.Date of Access: 27 December. http://unfccc.int/files/meetings/workshops/other_meetings/application/pdf/russian_presentation.pdf

[549] Analytic materials for the preparation of proposals on the position of Russian Federation on the issue of future commitments to reduce anthropogenic emissions of GHG for the period after 2012 (p.3.9. of the Kyoto Protocol), Ministry of Economic Development and Trade,

December 2007, the Ministry of Economic Development and Trade confirmed that if the commitments of the second period of Kyoto arrangements will impede economic growth, Russia will not ratify them.[550]

Joint Implementation (JI) offers Russia a chance to attract inward investment while reducing domestic GHG emissions. Within a short time span Russia has made significant progress in preparing the legislative base for using the opportunities offered by the JI mechanism and participating in the carbon trading market, which is reflected in Russia's improved position in the rating of the countries hosting JI projects this year.[551] On 28 May 2007, the Government signed the Decree about "Statute on Adoption and Review of Realization of JI Projects", initiated already in the National Action Plan on the implementation of Kyoto Protocol (September 2004).[552] On 20 August 2007, the Decree regarding "The Order of Creation and Maintenance of the National Registry of Carbon Units" entered into force.[553] These changes in the legislative base have opened the way for a wide-scale process of submitting project design documents for JI projects. The documents, which had been in the process of preparation for more than a year, were finally adopted according to the schedule in January.[554]

In January 2008, Russia finally adopted the legislative base necessary for trade in carbon quotas and for realization of the projects aimed at GHG reduction under JI mechanism.[555] In March 2008, Russia became the fourth country which successfully joined the point carbon registry of UN.[556]

Following the introduction of the key laws for trading in carbon quotas, Russia has increasingly become an attractive market for foreign investment.

Moscow, 2006.Date of Access: 27 December 2007.
http://www.ncsf.ru/resources/materials/54.pdf

[550]The Future of the Kyoto Protocol, M.Shishkin, A.Shapovlov, Kommersant, N 226(3802), Moscow, 7 December 2007. Date of Access: 26 December 2007.
http://www.kommersant.ru/doc.aspx?docsid=833721

[551] Commentary on the rating of the counties, hosting JI projects, PointCarbon, 20 December 2007. Date of Access: 27 December 2007. http://www.pointcarbon.ru/

[552] Russian JI procedures: more problems than solutions? A.Korppoo, A.Moe, Briefing paper, National Organisation for the Support of Carbon absorbing Projects, June 2007. Date of Access: 26 December 2007. http://www.ncsf.ru/resources/materials/70.pdf

[553] Decree of the Ministry of Natural Resources of Russian Federation, Ministry of Economic Development and Trade from 7 May 2007, N 121/, Moscow "Decree about the Order of Creation and Maintenance of the National Registry of Carbon Units", Russian Gazeta, 5 September 2007.Date of Access: 26 December 2007. http://www.rg.ru/2007/09/05/yglerod-dok.html

[554]Russia invites experts to submit applications for making the assessment of JI projects, PointCarbon, 15 August 2007. Date of Access: 27 December 2007.
http://www.pointcarbon.com/□□□□□A□/□□□□□□□/article23994-304.html

[555] Russia adopts a legislative base for JI for realization of projects, Point Carbon ,London, 30 January 2008.Date of access: 7 June 2008.
http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article26500-304.html

[556] Russia joins the international registry of operations, Point Carbon, London, 1 April 2008. Date of Access: 7 June 2008.
http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article27507-304.html

In December 2007, Russia set the quotas of ERU for each industrial sector in the country for the period of 2008-2012. The aggregated target for selling of quotas for this period comprises 300 mil quotas.[557] Already in late 2007 the Special Committee of UN approved 13 JI implementations projects, which will be implemented in Russia. The biggest project, capable of generating 18.6 mil ERU within the Kyoto period, will be realised through the practice of methane capture in the coal mines of Kusbass.[558]

In March, the Secretariat of UNFCCC published the documents regarding 6 Russian JI projects. The potential of these projects is estimated to be 47.6 mil ERU in the 5 year Kyoto period and 44 ERU in the next five years.[559] As of March 2008, there were 59 JI projects awaiting approval from the Russian government.[560]

The latest developments show that Russia has intensifies its effort to use the JI mechanism efficiently. Further, in May the official representative of the MEDT(Ministry of Economic Development and Trade) stated that Russia can change the system of quotas distribution. While the aggregated amount of quotas will not be changed (it will remain at 300 mil ERU), the level accorded to each sector can be changed according to the level of utilisation of the corresponding quota.[561]

The economic rationale behind compliance with the commitment to reduce GHG emissions primarily through the use of the JI mechanism is revealed by the fact that MEDT expects to attract at least $2 billion of targeted investments into the economy.[562] These investment flows may serve to modernize the energy sector, and reduce its large share of GHG emissions

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[557] Russia adopts a legislative base for JI for realization of projects, Point Carbon ,London, 30 January 2008.Date of access: 7 June 2008.
http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article26500-304.html

[558] Russia presented a new group of JI projects to UN, Point Carbon, London, 4 April 2008. Date of Access: 7 June 2008.
http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article27577-304.html

[559] The process of approval of JI projects in Russia has become more active, Point Carbon, London, 19 March 2008. Date of Access: 7 June 2008.
http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article27328-304.html

[560] Russia adopts a legislative base for JI for realization of projects, Point Carbon ,London, 30 January 2008.Date of access: 7 June 2008.
http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article26500-304.html

[561] Russia may change the system of quota distribution, Point Carbon, 15 May 2008. Date of Access: 7 June 2008.
http://int.pointcarbon.com/%D0%93%D0%9B%D0%90%D0%92%D0%9DA%D0%AF/%D0%9D%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/article28253-304.html

[562] Kyoto bog, Supplement to the newspaper Kommersant,N 170(3746), Moscow, 19 September 2007. Date of Access: 26 December 2007.
http://www.kommersant.ru/doc.aspx?DocsID=803850

(81.6 % in 2004) in the Russian economy.[563] To date, documentation on more than 50 Russian projects exceeding 79 million emissions reduction units (ERUs) has been submitted to the Joint Implementation Supervision Committee (JISC).[564] The projects range from the use of biofuels for heating and electric power generation in the remote villages of the Irkutsk region to the use of associated petroleum gas in Chanty-Mansisjski region.[565]

Despite the fact that Russia has complied with its limitations under the Kyoto Protocol, in 2004, an increase of 7.2 % over 1999 (the year when the lowest level of GHG emissions was emitted) in GHG emissions was registered.[566] Moreover, converted to one dollar of PPP GDP, Russia emits 3.8 times more greenhouse gases than the leading European countries and 2.6 times more than on average developed countries and countries in transition.[567] Moreover, according to the Chairman of the Committee of the Natural Resources and Environmental Protection, V. Orlov, in the near future Russia may faced with the necessity of buying carbon quotas because it will exceed its allowed threshold of GHG emissions. [568]Therefore, using opportunities offered by the Kyoto Protocol to modernize its economy and employing a rapid pace to establish all the conditions for the implementation of JI projects is the logical policy strategy for Russia.

Legislative reforms that encourage the preparation of JI projects may prove to reduce GHG emissions from the Russian economy and modernize its energy sector. But notwithstanding policy actions that facilitate investment into emissions reductions projects in Russia, the government's failure to formulate a clear strategy to deal with climate change challenges suggests that it regards the whole Kyoto arrangement primarily as an economic and investment activity rather than one that facilitates a collective international response to global climate change. Furthermore, during negotiations over a post-Kyoto treaty, Russia rejected the EU's proposal at the UN Climate Change Conference in Bali for ambitious global reduction targets by 2050. Given its lack of national leadership in support of a strategic framework for reducing domestic GHG emissions, the government is found to be only in partial compliance with this commitment.

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[563] National Report of the Russian Federation on the Amount of GHG Emission, Moscow, 2007. Date of Access: 26 December 2007. http://unfccc.int/files/national_reports/initial_reports_under_the_kyoto_protocol/application/pdf/initial_report_russia.pdf

[564] Government Decree Containing Procedures for JI Projects Adoption and Review of Their Implementation has been adopted , Russian Regional Environmental Centre, Moscow. Date of Access: 27 December 2007. http://www.rusrec.ru/ru/docs/1236

[565] Preparation of JI projects, National Organization for the Support of Carbon Absorbing Projects, Moscow. Date of Access: 26 December 2007. http://www.ncsf.ru/prepare2.php

[566] National Report of the Russian Federation on the Amount of GHG Emission, Moscow, 2007. Date of Access: 26 December 2007. http://unfccc.int/files/national_reports/initial_reports_under_the_kyoto_protocol/application/pdf/initial_report_russia.pdf

[567] Russia and the Kyoto Protocol: how to meet the Challenges and not to miss the Chances, M.A. Yulkin, Environmental Investment Centre. Date of Access: 24 December 2007. http://www.eel.nl/documents/cms_eel_105_1_Kyoto%20Article.pdf

[568] Russia will start buying quotas on GHG emission, News Agency, Regnum, 7 April 2008. Date of Access: 7 June 2008. http://www.regnum.ru/news/982744.html

Analyst: Ina Zharkevich

Addendum:

- On 20 June 2008, in an interview with the Nikkei Report, Arkadzy Dvorkovich, an aide to Russia's president Medvedev, said that the Russian government intends to support the Japanese approach to setting targets for cutting greenhouse gas emissions. Dvorkovich further stated that Russia is working to draw up medium-term greenhouse gas emissions reduction targets, saying that sector-by-sector plans through 2020 should be completed this year. In addition, Dvorkovich stressed the importance of insisting on the participation of emerging economies.[569]

Russian Federation	**Score**
1B. Promote Less Emission-Intensive Energy Production	**-1**

The Russian government has insufficiently complied with its commitment to promote less emission-intensive energy production. Although Russia continues to promote energy efficiency through *existing* multilateral programmes (especially in the area of clean coal combustion technologies), no new federal measures have been undertaken, existing national programmes remain under-funded, and no ambitious carbon reduction targets have been assumed. This analysis arises from an examination of three key areas: clean coal technologies, carbon capture and storage, and renewable energy sources.

The key provisions of a 2003 government document entitled "Energy Strategy until the year 2020" envisaged a 75 % increase in coal production and a subsequent increase in coal use for electricity generation.[570] Conversely, according to the IEA, the strategy is 'vague on Kyoto'. It indicates that Russian gas exports to Europe will increase, while the growing domestic demand for energy will be supplied by the construction of coal-fired power plants. Therefore, the systematic adoption of clean coal combustion technologies is critical to Russia abiding by its commitment to reduce the emission-intensity of energy production.

[569] Russia To Back Japan's Method For Targeting CO2 Cuts, G8 Live.org, 20 June 2008. Date of Access: 3 July 2008. http://g8live.org/2008/06/20/russia-to-back-japans-method-for-targeting-co2-cuts/.
[570] Communication from the Commission to the Council and the European Parliament on the Development of Energy Policy for the Enlarged European Union, its Neighbours and Partner Countries. 26 May 2003. p.9. Date of Access: 27 December 2007. http://ec.europa.eu/dgs/energy_transport/international/doc/2003_communication_en.pdf.

The Russia-EU Energy Dialogue was initiated in 2000 and support for the CARNOT Programme represents a strong commitment on Russia's part to increase coal energy efficiency. [571] Under the Russia-EU Energy Dialogue, the Russian government has shown a commitment to implement pilot programs, but there is a little indication that new technologies will be applied to all new plants. However, four CARNOT projects are currently underway.[572] The two more general ones respectively aim to facilitate the technology transfer of relatively low cost methods to improve the efficiency of coal-fired plants and to conduct and present a market assessment on the prospects of rehabilitating/rebuilding coal-fired plants to increase their efficiency. A third plant-specific project underway is studying the rehabilitation of the *Novocherkasskaya GRES* coal-fired plant to establish the most suitable solutions considering environmental constraints and the quality of coal used. A fourth project is a study of the potential for a new Integrated Gasification Combined-Cycle (IGCC) plant, resulting in a combustible gas that is highly efficient and virtually pollutant-free. [573]

Concerning Carbon Capture and Sequestration (CCS), Russia has not adopted any policies promoting CCS research and/or deployment unilaterally. Russia is a member of the Carbon Sequestration Leadership Forum (CSLF)[574] that recently decided to focus on ways in which political barriers to CCS implementation (that outweigh technical challenges) can be surpassed. However, the CSLF provides little in the way of formal decision making or any economic means by which to implement actions based on its discussions and observations.

More broadly, in 2007, Russia's record continues to be mixed and the country's renewable energy potential remains unrealised. The exception is geothermal energy that is used for heating and electricity production in the Northern Caucasus and the Russian Far East. Estimates suggest that Russia has favourable climatic conditions for both wind and solar power, yet both sources of renewable energy remain underdeveloped. For example, the EBRD argues that utilizing just 25 % of its total potential would yield some 175,000 MW of power.[575] Under Kyoto, the Russian government has approved joining

[571] The CARNOT Programme was adopted in December 1998 by the Council of the European Union in support of technological actions promoting the clean and efficient use of solid fuels. European Commission Energy Framework Programme. Date of Access: 27 December 2007. http://ec.europa.eu/energy/rtd/carnot/index_en.htm

[572] European Union Russia Energy Dialogue. Date of Access: 27 December 2007. http://ec.europa.eu/energy/russia/issues/coal_en.htm

[573] The IGCC concept is based on a coal gasification process that converts coal into a synthetic gas that is subsequently cleaned. The technology also has the potential of CO2 capture, and thus of sequestration, and of hydrogen production that can then be used for clean technologies. European Union Russia Energy Dialogue. Date of Access: 27 December 2007. http://ec.europa.eu/energy/russia/issues/coal_en.htm

[574] The CSLF is an international initiative focused on surveying the technical, economical and legal conditions that can influence the establishment of CCS projects. Stangeland, Aage. Carbon Capture and Storage: Technically Possible but Politically Difficult. 1 December 2006. Date of Access: 27 December 2007. http://www.bellona.no/bellona.org/articles/ccs_technically%20possible_politically_difficult

[575] EBRD Renewable Energy Initiative - Russia Country Overview, EBRD website. Date of Access: 2 July 2008. http://www.ebrdrenewables.com/sites/renew/countries/Russia/default.aspx

the emission trading market and JI rules.[576] At the United Nations Climate Change Conference in Bali 3-14 December 2007, Economics Ministry official Vsevolod Gavrilov announced that the government had approved approximately ten JI projects in electricity generation, public utilities, heavy industry, and pollution management.[577] However, Russia's Kyoto target for the first commitment period (2008-2012) as an Annex I country (equivalent to 1990 levels) could potentially mean that the adoption of renewable energy technologies effectively translates into *no* mandatory emissions cuts, since Russia's emissions fell below the baseline during the economic decline following the collapse of the Soviet Union.

In addition, there is insufficient government support for policy targets, regulations and incentive programs that promote renewable energy. Russia's "Energy Strategy until the year 2020" provides strategic goals but no real quantitative targets. The EBRD notes that the "development of renewable energy projects is hindered by the lack of a legislative mandate (renewable portfolio standard or feed-in prices), low electric and heat tariffs, low public demand, and the overall lack of investment capital due to economic instability."[578] In terms of national regulations, the "Energy Efficient Economy" programme of 2001 stipulates renewable energy targets of 800MWe and 1000 Gcal/h by 2010. However, this and other similar federal programmes remain under-funded. Moreover, due to insufficient comprehensive data, the potential for private investment is unrealised. On the positive side, although a draft renewable energy law was vetoed in 1999, a new draft has been in development since 2004 as well as a draft biofuels law. Furthermore, an electricity sector reform programme was launched in 2001 to improve efficiency. Other multilateral programmes such as EBRD-funded projects[579] and the GEF-World Bank "Russian Programme for Renewable Energy" are more promising.[580] Funded through multilateral organizations, such programmes receive appropriate financial backing and follow-up.

This lack of concern for low emission energy sources in Russia's energy strategy stands in contrast to many other G8 member states. In any case, aside from Russia's continued commitment to multilateral programmes, particularly in the area of clean coal combustion technologies, the country fails to provide sufficient regulatory support for programmes promoting low

[576] Radio Free Europe Radio Liberty. Russia Says it will Meet Emissions Target. 16 June 2007. Date of Access: 27 December 2007. http://www.rferl.org/featuresarticle/2007/06/126cc61c-a755-4729-8de5-a2f37c052829.html

[577] The Climate Depends on the U.S. Participation, Russia's Economy, Kommersant Russia's Daily Online, (Moscow), 7 December 2007. Date of Access: 13 December 2007. http://www.kommersant.com/p833721/global_warming/

[578] EBRD Renewable Energy Initiative - Russia Country Overview, EBRD website. Date of Access: 2 July 2008.
http://www.ebrdrenewables.com/sites/renew/countries/Russia/default.aspx

[579] For example, the Tambov region of Russia is considering a €200M bioethanol plant to increase biofuel production. EBRD Renewable Development Initiative Developments. Date of Access: 27 December 2007. http://www.ebrdrenewables.com/sites/renew/default.aspx

[580] Merle-Beral, Elena. Russia Renewable Energy Markets and Policy: Key Trends. Global Best Practice in Renewable Energy Policy Making Experts Meeting. Paris, 29 June 2007. Date of Access: 27. December 2007
http://www.iea.org/textbase/work/2007/bestpractice/Merle_Beral.pdf

carbon-energy sources and to specify ambitious targets for lowering the carbon content of domestic energy production beyond Kyoto. As a result, Russia's insufficient performance on the three major elements of its G8 commitment to promote less emission-intensive energy production warrants an overall score of -1.

Analyst: Carmen Gayoso and Christopher Wright

Russian Federation	**Score**
1C. Promote Less Emission-Intensive Energy Consumption	**0**

Russia's policy actions in promoting less emission-intensive energy consumption has largely been limited to periodic public statements, a few legislative and policy proposals, the adoption of non-binding efficiency targets, and promises for future international cooperation.

On 4 June 2008, President Dmitry Medvedev signed a decree "On Measures to make the Russian Economy more Energy and Environment Efficient".[581] In earlier occasions the President has remarked that the current legal framework does not promote conservation measures,[582] and that the majority of Russian industries are between 10 and 20 times less efficient than modern industry should be.[583]

The decree aims to reduce by at least 40 % the amount of energy used to produce the country gross domestic product by 2020 as compared to the 2007 energy consumption figure.[584] Specifically, the government is instructed to take measures to make economic sectors such as electricity, construction, housing and utilities, and transport more energy and environment efficient, and to organize the transition to a common set of principles for drawing up

[581] Dmitry Medvedev signed a decree "On Measures to make the Russian Economy more Energy and Environment Efficient", President of Russia Official Web Portal, (Moscow), 4 June 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/news/2008/06/202099.shtml
[582] Beginning of the Meeting of the Security Council to discuss Russia's Environmental Security, President of Russia Official Web Portal, (Moscow), 30 January 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/speeches/2008/01/30/1136_type82913_158728.shtml
(NB. At that time Medvedev spoke in the capacity as the First Deputy Prime Minister.)
[583] Opening Remarks at the Meeting on Improving Environmental and Energy Efficiency in the Russian Economy, President of Russia Official Web Portal, (Moscow), 3 June 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/speeches/2008/06/03/2225_type82913_202070.shtml
[584] Dmitry Medvedev signed a decree "On Measures to make the Russian Economy more Energy and Environment Efficient", President of Russia Official Web Portal, (Moscow), 4 June 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/news/2008/06/202099.shtml

regulations on acceptable environmental impact.[585] Laws on economic incentives for using energy-saving and environmentally friendly technology and on increasing liability for exceeding acceptable environmental impact levels are also to be drafted.[586] Further, the government is to provide funding for projects involving the use of renewable energy and the introduction of environmentally-friendly and energy efficient technologies; this is to be reflected in the 2009, 2010-2011 federal budgets, and those "for the next few years."[587] Where implementation is concerned, Medvedev also took notice of the need to streamline the delineation of powers of various state agencies responsible for environmental impact assessment and monitoring.[588]

Another legislative development is the draft law "On Saving Energy". On 30 November 2007, the Ministry of Industry and Energy announced it has drafted a new law "On Saving Energy" which proposes that every enterprise undergoes an energy audit and receives an "energy passport" that would contain information on energy use and the steps being taken to improve energy efficiency. The audits would be carried out by Federal Service for Ecological, Technical and Atomic Supervision (Rostekhnadzor).[589]

Nevertheless, other compliance efforts have been limited to plans or statements of possible policy initiatives. For example, the Ministry of Regional Development introduced a "Long-Term Strategy for Mass Construction of Housing" in September 2007, which included the establishment of a new licensing agency that would ensure the energy efficiency of the new housing constructed under the proposal.[590] According to the Deputy Prime Minister Alexei Kudrin, who is also the Finance Minister, Russia is considering

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[585] Dmitry Medvedev signed a decree "On Measures to make the Russian Economy more Energy and Environment Efficient", President of Russia Official Web Portal, (Moscow), 4 June 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/news/2008/06/202099.shtml
[586] Dmitry Medvedev signed a decree "On Measures to make the Russian Economy more Energy and Environment Efficient", President of Russia Official Web Portal, (Moscow), 4 June 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/news/2008/06/202099.shtml
[587] Opening Remarks at the Meeting on Improving Environmental and Energy Efficiency in the Russian Economy, President of Russia Official Web Portal, (Moscow), 3 June 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/speeches/2008/06/03/2225_type82913_202070.shtml; Dmitry Medvedev signed a decree "On Measures to make the Russian Economy more Energy and Environment Efficient", President of Russia Official Web Portal, (Moscow), 4 June 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/news/2008/06/202099.shtml
[588] Beginning of the Meeting of the Security Council to discuss Russia's Environmental Security, President of Russia Official Web Portal, (Moscow), 30 January 2008. Date of Access: 11 June 2008.
http://www.kremlin.ru/eng/text/speeches/2008/01/30/1136_type82913_158728.shtml
(NB. At that time Medvedev spoke in the capacity as the First Deputy Prime Minister.)
[589] Note that Rostekhnadzor has stated that it as yet to formulate an official position, and the draft has yet to undergo conciliation. Law on Industrial Energy Saving Drafted, Kommersant Russia's Daily Online, (Moscow), 30 November 2007. Date of Access: 13 December 2007.
http://www.kommersant.com/p830984/ecology_energy/
[590] Call to Extend a National Project, Kommersant Russia's Daily Online, (Moscow), 25 July 2007. Date of Access: 13 December 2007.
http://www.kommersant.com/p789573/housing/

imposing energy tariffs[591] but concrete programmes have yet to be formulated.[592]

In the international arena, Russia's policy actions on promoting energy efficient consumption have been confined to periodic public statements and gestures. On 8 June 2007, the then-President, Vladimir Putin, remarked that Russia "intends to do even more" to support energy efficiency.[593] Later in the same month, Putin attended the Southeast Europe Energy Summit, and endorsed the Statement of the Chairman, which stated that, *inter alia*, "the countries of the region will encourage measures for strengthening energy efficiency and energy saving through initiatives to be implemented at the national, regional and international level, including a possible international agreement on energy efficiency."[594] Furthermore, on 9 September 2007, in the Joint Statement on Climate Change and Energy with the former Prime Minister of Australia, John Howard, President Putin committed Russia to be actively involved in promoting energy efficiency under the APEC Energy Working Group framework.[595]

Russia's most important public statements have been its adoption of the Sydney APEC Leaders' Declaration on Climate Change, Energy Security and Clean Environment in 9 September 2007 (the so-called "Sydney Declaration"),[596] and its support for the establishment of the International Partnership for Energy Efficiency Cooperation (IPEEC) in June 2008, as part of the run-up to the G8 Hokkaido Summit.[597]

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[591] Russian Govt. to Provide $40 mln to Curb Food Prices-1, RIA Novosti, (Moscow), 26 October 2007. Date of Access: 18 December 2007.
http://en.rian.ru/russia/20071026/85575817.html

[592] The Deputy Prime Minister only said, "We have been working on an energy efficiency program for some time and we should probably devote more attention to it." Russian Govt. to Provide $40 mln to Curb Food Prices-1, RIA Novosti, (Moscow), 26 October 2007. Date of Access: 18 December 2007.
http://en.rian.ru/russia/20071026/85575817.html

[593] Putin Bestows Awards on Energy Scientists, Talks Energy Security, RIA Novosti, (Moscow), 9 June 2007. Date of Access: 18 December 2007.
http://en.rian.ru/russia/20070609/66991413.html

[594] Statement of the Chairman of the Southeast Europe Energy Summit, President of Russia Official Web Portal, (Moscow), 24 June 2007. Date of Access: 2 January 2008.
http://www.kremlin.ru/eng/events/articles/2007/06/136241/136422.shtml

[595] Joint Statement by the Prime Minister of Australia, the Hon John Howard MP, and the President of the Russian Federation, Vladimir Putin, on Climate Change and Energy, President of Russia Official Web Portal, (Moscow), 7-9 September 2007. Date of Access: 2 January 2008.
http://www.kremlin.ru/eng/events/articles/2007/09/143433/143452.shtml

[596] Sydney APEC Leaders' Declaration on Climate Change, Energy, Security and Clean Development, President of Russia Official Web Portal, (Moscow), 9 September 2007. Date of Access: 2 January 2008.
http://www.kremlin.ru/images/07_aelm_ClimateChangeEnergySec[1].pdf

[597] The International Partnership for Energy Efficiency Cooperation (IPEEC), The Commission of the European Communities - Press Releases, (Brussels), 8 June 2008. Date of Access: 11 June 2008.
http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/380&format=HTML&aged=0&language=EN&guiLanguage=en

By signing the Sydney Declaration, Russia agreed to a number of non-binding goals on improving energy efficiency.[598] Specifically, it pledged to work towards achieving an "aspirational goal of a reduction in energy intensity of at least 25 per cent by 2030."[599] It also agreed to "promote policies that advance the deployment of low and zero emission energy uses, in particular in the field of clean coal use and carbon capture and storage through co-operative work in the APEC Energy Working Group."[600] Where the aviation industry is concerned, it undertakes to "advance work in key areas such as air traffic management systems, aircraft design and alternative fuels."[601]

Following a meeting of the energy ministers on 8 June 2008 in Aomori, Japan, Russia, together with other G8 countries, China, India, South Korea and the European Community, decided to establish the International Partnership for Energy Efficiency Cooperation (IPEEC).[602] The participating countries can choose to take action in the areas of their interest on a voluntary basis.[603] Areas of future cooperation amongst participants include: building up an inventory on existing national and multilateral efforts on energy efficiency improvements, sharing of best practices on programme development, public procurement, industrial plant audits, training, public awareness efforts, and identifying areas of joint actions.[604]

In all, despite the fact that the law "On Measures to make the Russian Economy more Energy and Environment Efficient" marks a significant improvement of Russia's effort in promoting more efficient energy use through demand-side interventions, the decree remains the only noteworthy

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[598] APEC Leaders Wind up Summit with Statements on Trade, Climate, RIA Novosti, (Moscow), 9 September 2007. Date of Access: 18 December 2007. http://en.rian.ru/russia/20070909/77582477.html

[599] Annex: Action Agenda, Sydney APEC Leaders' Declaration on Climate Change, Energy, Security and Clean Development, President of Russia Official Web Portal, (Moscow), 9 September 2007. Date of Access: 2 January 2008. http://www.kremlin.ru/images/07_aelm_ClimateChangeEnergySec[1].pdf

[600] Annex: Action Agenda, Sydney APEC Leaders' Declaration on Climate Change, Energy, Security and Clean Development, President of Russia Official Web Portal, (Moscow), 9 September 2007. Date of Access: 2 January 2008. http://www.kremlin.ru/images/07_aelm_ClimateChangeEnergySec[1].pdf

[601] Annex: Action Agenda, Sydney APEC Leaders' Declaration on Climate Change, Energy, Security and Clean Development, President of Russia Official Web Portal, (Moscow), 9 September 2007. Date of Access: 2 January 2008. http://www.kremlin.ru/images/07_aelm_ClimateChangeEnergySec[1].pdf

[602] The International Partnership for Energy Efficiency Cooperation (IPEEC), The Commission of the European Communities - Press Releases, (Brussels), 8 June 2008. Date of Access: 11 June 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/380&format=HTML&aged=0&language=EN&guiLanguage=en

[603] The International Partnership for Energy Efficiency Cooperation (IPEEC), The Commission of the European Communities - Press Releases, (Brussels), 8 June 2008. Date of Access: 11 June 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/380&format=HTML&aged=0&language=EN&guiLanguage=en

[604] The International Partnership for Energy Efficiency Cooperation (IPEEC), The Commission of the European Communities - Press Releases, (Brussels), 8 June 2008. Date of Access: 11 June 2008. http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/380&format=HTML&aged=0&language=EN&guiLanguage=en

development. On the domestic front, the law "On Saving Energy" is yet to be passed, and various policy suggestions are yet to be realized. On the international front, it is noted that Russia has committed itself to several goals on improving energy efficiency through the adoption of the Sydney Declaration. However, those goals are nonbinding; the targets are "aspirational"[605] and have been criticized by environmental groups as being vague and inadequate.[606] Similarly, cooperation based on the IPEEC is also voluntary and participant countries are given much leeway to decide the areas of activities for intervention. This does not even take into account the fact that the IPEEC is at its nascent stage of development (it is just established). Therefore, on balance, Russia is only found to be in partial compliance with this commitment.

Analyst: Seren Tang

Russian Federation	**Score**
1D. Support for Climate Adaptation in DCs	**-1**

Russia has not introduced any significant new political initiatives to aid adaptation in developing countries. There are few indications that Russia is constructively engaged in augmenting investment flows to climate adaptation projects in developing countries.[607] For example, Russia has not provided support for multilateral programmes that improve information and data gathering with the purpose of predicting climate change effects in developing countries. Moreover, the government has not issued any significant statements with regards to the provision of technical assistance for developing countries to develop their assessment capabilities. Similarly, Russia has not engaged in bilateral relations with any country to launch projects or direct financing in support climate change adaptation projects.

The lack of international policy actions on climate adaptation is also reflected in weak national plans for addressing adaptation domestically. Several

[605] Annex: Action Agenda, Sydney APEC Leaders' Declaration on Climate Change, Energy, Security and Clean Development, President of Russia Official Web Portal, (Moscow), 9 September 2007. Date of Access: 2 January 2008. http://www.kremlin.ru/images/07_aelm_ClimateChangeEnergySec[1].pdf
[606] APEC Leaders Wind up Summit with Statements on Trade, Climate, RIA Novosti, (Moscow), 9 September 2007. Date of Access: 18 December 2007. http://en.rian.ru/russia/20070909/77582477.html
[607] HDR 2007/2008: Climate Change. Russia Country Paper , by Renat Perelet, Serguey Pegov and Mikhail Yulkin, HDR Office Occasional Paper 12/2007. Date of Access: 2 July 2008. http://hdr.undp.org/en/reports/global/hdr2007-2008/papers/perelet_renat_pegov_yulkin.pdf

multilateral organizations, including the European Bank for Reconstruction and Development (EBRD), the UN Development Programme (UNDP), and the Arctic Monitoring and Assessment Programme, provide financial and technical support for adaptation projects in Russia. However, national plans for promoting sustainability in Russia have not explicitly included adapting to climate change impacts, or promoting adaptive capacity. Deforestation continues to undermine Russia natural carbon sinks, forest fires and insect invaders annually destroy millions of cubic meters of timber from the standing forest, including young forests, and illegal tree cutting is growing in scale in Russia and has increase 3.6 times over the last 15 years.

In relation to adaptation, Russia figures as much as a recipient country as a donor, distinguishing it from other G8 countries. Due to its vast territory and variety of geographical conditions, climate change effects are significant and have considerable spatial and seasonal variations in Russia. But while Russia may face a bigger adaptation challenge at home than most G8 countries, it nevertheless has capacity to support adaptation projects in developing countries. Yet, in the absence of substantial political initiatives that demonstrate compliance, Russia is awarded a score of -1.

Analyst: Christopher Wright

Russian Federation	**Score**
1E. Reducing GHG Emissions by Curbing Deforestation	**0**

Since the Heiligendamm Summit, Russia has made some significant efforts to meet the goal of reducing GHG emissions by curbing deforestation. However, despite the visible progress made in complying with the commitment, the mixed results of the domestic policy reform in forest sector and the lack of sufficient budgetary allocations has undermined Russia's performance in this area.

Russia has showed significant activity in addressing the problem of cutting GHG emissions by curbing deforestation in the first half of the follow-up period to G8 Heiligendamm Summit. The bulk of initiatives on both international and domestic level were launched in this period. Thus, the most important domestic initiative concerned the project of creating carbon-removing forests and on the international level it pertained to holding the conferences between the main foresting countries. However, the first half of 2008 was characterized by decline in the amount of new proposals but marked by the emphasis on implementation of the already existing ones.

Russia has a strong interest in abiding by its commitment to reduce GHG emissions by curbing deforestation. While 2.8 % of Russia's total emissions result from land-use, land-use change, and forest degradation (LULUCF), Russia represents one-fifth of world's forest areas and holds almost 50 % of

the Northern Hemisphere's terrestrial carbon.[608] While Russia's total quota of emissions equals 3.048 mil tons CO2-eq/yr,[609] its forests carbon sink values are estimated at 146-439 MtCO2/yr.[610] As a result, unlike most other G8 member states, fulfilling a commitment to curb deforestation should be viewed principally as a domestic priority.

According to the Marrakech Accords, Russia has the right to count additional carbon removals by sinks from improvement of land and forest management practices in the amount up to 33 million tons of carbon annually, which means 121 million tons CO2-eq.[611] As a result, Russia may add 605 million removal units to its budget of emissions over a period of five years.[612] However, to use the benefits resulting from the Marrakech Accords, Russia must prove the increase of carbon sinks are a consequence of targeted policies and measures in the field of land and forest management practices.

Russia has initiated several domestic and international policy initiatives to address deforestation. On 26 September 2007, Valerij Roschupkin, the Head of the Federal Forestry Agency (FFA), stated that within the framework of the Kyoto Protocol, Russia must create carbon absorbing forests and promote sustainable forest management.[613] Russia's implementation of the first policy direction is illustrated by two pilot projects: the creation of "Kyoto forests", launched in Nizhegorodskaya and Uljanovskaya oblast on the territory of 3,500 hectares.[614] FFA plans aim to increase forest plantations in the period of 2008-2012 by up to 30,000 hectares on the territory of ten regions of Russia. It is estimated that removal of carbon from sinks in "Kyoto forests" will amount up to 3.5 mill C/yr, while improved forest management in other forests will amount to up to 33 mill tons C/yr.[615] These policy initiatives have been supported by increased funding. While at present about 200 million rubles are invested in creating of "Kyoto forests" annually, Russia has

[608] Russia's Boreal Forests, WWF, Russia, 13 November 2007.Date of Access: 24 December 2007. http://assets.panda.org/downloads/russia_forest_cc_final_13nov07.pdf
[609] Russia's Boreal Forests, WWF, Russia, 13 November 2007.Date of Access: 24 December 2007. http://assets.panda.org/downloads/russia_forest_cc_final_13nov07.pdf
[610] Mitigation of Climate Change. Chapter 9 –Forestry, IPCC Fourth Assessment Report., 2007. Date of Access: 23 December. http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter9.pdf
[611] Russia and the Kyoto Protocol: how to meet the Challenges and not to miss the Chances, M.A. Yulkin, Environmental Investment Centre. Date of Access: 24 December 2007. http://www.eel.nl/documents/cms_eel_105_1_Kyoto%20Article.pdf
[612] Russia and the Kyoto Protocol: how to meet the Challenges and not to miss the Chances, M.A. Yulkin, Environmental Investment Centre. Date of Access: 24 December 2007. http://www.eel.nl/documents/cms_eel_105_1_Kyoto%20Article.pdf
[613] Russia invests 200 mill. rubles in the creation of "Kyoto forests" annually, Press-service of the Ministry of Natural Resources, Moscow, 26 September 2007. Date of Access: 22December 2007. http://les.mnr.gov.ru/part/?act=more&id=4144&pid=252
[614] Russia invests 200 mill. rubles in the creation of "Kyoto forests" annually, Press-service of the Ministry of Natural Resources, Moscow, 26 September 2007. Date of Access: 22 December 2007. http://les.mnr.gov.ru/part/?act=more&id=4144&pid=252
[615] Russia invests 200 mill. rubles in the creation of "Kyoto forests" annually, Press-service of the Ministry of Natural Resources, Moscow, 26 September 2007. Date of Access: 22 December 2007. http://les.mnr.gov.ru/part/?act=more&id=4144&pid=252

committed to increasing this sum four-fold and raise it to 1.5 billion rubles by 2010.[616]

In 2008, Russia has continued to implement the programme of carbon removal from sinks in "Kyoto forests". The scope of the programme has expanded by supplementing the two pilot regions with the 6 other subjects of Russian Federation. [617] Thus, during the first stage of the project's implementation, 500 ha of carbon-removing forests have already been planted in Omskaya oblast, [618] whereas Uljanovskaya[619] and Saratovskaya[620] regions plan to cover the territory of 1000 and 1700 ha respectively.

On 16-19 October 2007, Russia reiterated its adherence to the principles of sustainable forest management during the Megaflorestais conference in St. Petersburg that gathered the heads of national forest agencies of the major foresting countries (Brazil, India, Indonesia, and Russia).[621] In addition, Russia has begun implementing these principles. Within the next five years, the FFA is planning to create 31 model forests on the territory of three million hectares, viewed not only as examples of sustainable forest management but as carbon sinks as well. It plans to start the project by establishing two model forests in Siberia and two in the European part of Russia. [622]

Russia has continued to enhance domestic protection of its forests by combating illegal logging, expanding its prior initiatives, and proposing new ones. According to the World Institute of Recourses (WRI), the level of illegal

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[616] The Federal Budget will forward 1.5 bill. rubles to the regions for the creation of "Kyoto forests" by 2010, Press-service of the Ministry of Natural Resources, Moscow, 17 December 2007.Date of Access: 22 December 2007.
http://les.mnr.gov.ru/part/?act=more&id=4493&pid=252

[617] One thousand seven hundred ha of new forests are to be planted in Saratovskaya oblast, News Agency, Regnum, 24 April 2008. Date of Access: 7 June 2008.
www.regnum.ru/news/991909.html

[618] In Omsk region 500 ha of "Kyoto forests were planted", News Agency, Regnum, 28 May 2008. Date of Access: 7 June 2008.http://www.regnum.ru/news/1006839.html

[619] Uljanovskaya oblast holds annual spring forest-regenerating activities, News Agency, Regnum, 7 April 2008. Date of Access: 7 June 2008. www.regnum.ru/news/982744.html
[620][620] One thousand seven hundred ha of new forests are to be planted in Saratovskaya oblast, News Agency, Regnum, 24 April 2008. Date of Access: 7 June 2008.
www.regnum.ru/news/991909.html
[621] 16-19 October 2007, the unofficial meeting of the heads of the national forestry agencies from the major foresting counties within the group "MegaFlorestais" takes place in St. Petersburg, Press-service of the Ministry of Natural Resources, Moscow, 17 October 2007. Date of Access: 22 December 2007.
http://les.mnr.gov.ru/part/?act=more&id=4253&pid=252
[622] The Federal Forestry Agency has worked out a Statute about model forests in Russia. According to it, within the next five years thirty one model forest zones will be created on the territory of the country, Press-service of the Ministry of Natural Resources, Moscow, 1 November 2007. Date of Access: 22 December 2007.
http://les.mnr.gov.ru/part/?act=more&id=4311&pid=252

logging in Russia comprises up to 15 % of the overall forest felling.[623] The scope of illegal logging in Russia has increased 3.6-fold in the 15-year period from a baseline year 1990.[624] Therefore, a great deal of effort is needed to tackle this problem. The system of distant aero cosmic monitoring of forest use, introduced in 2004, covers 113 million hectares of forests[625] and, according to the FFA, the current goal is to put the whole territory of Russia under monitoring, which would help not only to combat illegal logging, but to fight fires.[626]

The creation of a unitary information base about forest felling and its export, as well as enacting stricter penalties for breaking laws in the forestry sector, are declared priorities in the coming years. In addition to these undertakings, a National Plan of Action against illegal logging and timber trade, which is expected to decrease the amount of illegal logging by 20-30 %, is currently being developed.[627]

In the first half of 2008, Russia has continued to work on a number of initiatives to tackle the problem of illegal logging: implementing distance monitoring, which will in 2008 cover the territory of 150 mil ha in 23 regions of Russia, creating an information system to control timber trade, and preparing to submit amendments to the Forest Code, which will institute stricter penalties for illegal logging and timber trade, for the process of Parliamentarian deliberation.[628]

Apart from domestic initiatives, in 2007, Russia has shown a significant amount of activity in the international arena, mainly through participating in a number of conferences and declaring its intention to host such events in the future. On 7 September 2007, President Vladimir Putin and former Prime

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[623] The first meeting of the Working Group on the protection of forests in Siberia and Far East which was established within the Russian-Japanese Commission on the environmental protection took place in Tokyo, Press-service of the Ministry of Natural Resources, Moscow, 15 October 2007.Date of Access: 22 December 2007. http://les.mnr.gov.ru/part/?act=more&id=4243&pid=252

[624] Russia and the Kyoto Protocol: how to meet the Challenges and not to miss the Chances, M.A. Yulkin, Environmental Investment Centre. Date of Access: 24 December 2007. http://www.eel.nl/documents/cms_eel_105_1_Kyoto%20Article.pdf.

[625]Federal Forestry Agency has analysed results of aero cosmic monitoring of forests for 2007, Press-service of the Ministry of Natural Resources, (Moscow), 30 November 2007.Date of Access:22 December 2007. http://les.mnr.gov.ru/part/?act=more&id=4311&pid=252

[626] Interview with V. Roschupkin, Russian Service of News, (Moscow), 7 December 2007.Date of Access: 22 December 2007. http://www.rusnovosti.ru/program_reports/40901/

[627] The first meeting of the Working Group on the protection of forests in Siberia and Far East ,s established within the Russian-Japanese Commission on the environmental protection, took place in Tokyo, Press-service of the Ministry of Natural Resources, Moscow, 15 October 2007.Date of Access: 22 December 2007. http://les.mnr.gov.ru/part/?act=more&id=4243&pid=252

[628] The first deputy Minister of the Ministry for Natural Resources, Semion Levi, held a meeting of the Interministry Commission of the MNR and MIA on tackling the problem of illegal logging and timber trade, Press Service of the Ministry of Natural Resources, Moscow, 26 March 2008. Date of Access: 7 June 2008. http://les.mnr.gov.ru/part/?act=more&id=4725&pid=252

Minister John Howard issued a joint statement declaring that "curbing deforestation is the key component of global action against climate change."[629] Russia's position on that issue is reflected in its support for the proposal at the United Nations Climate Change Conference to include sustainable forest management and land-use in the post-2012 international climate arrangement. Moreover, Russia reiterated all of its commitments undertaken during the Heiligendamm Summit by endorsing the Sydney APEC Leaders' Declaration, among them the commitment to "encourage afforestation and reforestation and to reduce deforestation, forest degradation, and forest fires, including by promoting sustainable forest management, combating illegal logging and addressing the underlying economic and social drivers."[630] More specifically, it declared a target to "[increase] forest cover in the APEC region by at least 20 million hectares of all types of forests by 2020."[631]

Despite some significant political statements and policy initiatives, a range of indicators demonstrate the limits of Russia's policy in the forest sector. First, current national plans to develop the forest industry sector means that the expected volume of timber procurement will increase from the current 187 mill m3/yr to 300 mill/yr by 2015.[632] Second, the new Forest Code, adopted at the beginning of 2007, which aims to decentralize the forestry sector and improve forest management, has had mixed results, especially with regards to illegal logging and forest fires. According to FFA, illegal logging increased by 40 % in 2007,[633] disclosure of illegal logging has worsened in 30 regions, and liquidation of forest fires on the day of an outbreak has decreased from 62 % in 2006 to 47 % in 2007.[634] Third, financial flows to the forestry sector are insufficient. According to the estimates of the Accounting Chamber, 42 billion rubles is the amount required to provide efficient forest management, while in the 2007 budget only 7,72 billion rubles were designated for federal forest needs and 7.1 billion in the form of subventions to the regions. Fourth, there is

[629] Joint Statement of President of the Russian Federation and Prime-Minister of Australia on the Problems of Climate Change and Energy Policy, adopted by V.Putin and J.Howard, Sydney, 7 September 2007.Date of Access: 22 December 2007. http://www.kremlin.ru/text/docs/2007/09/143358.shtml

[630] Sydney APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development, Sydney, Australia, 9 September 2007. Date of Access: 22 December 2007. http://www.kremlin.ru/interdocs/2007/09/07/0811_type72067_143514.shtml

[631]Sydney APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development, Sydney, Australia, 9 September 2007. Date of Access: 22 December 2007. http://www.kremlin.ru/interdocs/2007/09/07/0811_type72067_143514.shtml

[632] By 2015 all the export of the "round" forest must be ceased, all timber will be processed within the country.The the amount of investments in the forest complex will increase in 50 times and will reach 48 bill. Dollars, Press-service of the Ministry of Natural Resources, Moscow, 10 October 2007. Date of Access: 22 December 2007http://les.mnr.gov.ru/part/?act=more&id=4217&pid=252.

[633] Forest Code is one year old, Press-service of Greenpeace, Moscow, 4 December 2007. Date of Access: 23 december 2007. http://www.greenpeace.org/russia/ru/press/releases/1600214

[634] Delegation of powers to the regions has worsened the state of affairs in several spheres of forestry management in the country, Press-service of the Ministry of Natural Resources, Moscow, 9 October 2007.Date of Access:22 December 2007. http://les.mnr.gov.ru/part/?act=more&id=4200&pid=252

little evidence of the work done to include forests in the global carbon markets.[635]

As one of the world's major foresting countries, it is no surprise that Russia seeks to influence and shape international negotiations over deforestation. Since Heiligendamm, it has participated in numerous international forums declaring support for sustainable forest management principles, and endorsed some long-term global policy targets. Russia has also taken the issue of reducing GHG emission by curbing deforestation seriously, which is reflected in a range of domestic action plans and programmes. However, given the forest cover trends in Russia and the limited scope of its own policies at the moment, Russia is found to be only in partial compliance with this commitment.

Analyst: Ina Zharkevich

[635] According to the laws of the Forest, T.Komarova, Supplement to the newspaper Kommersant, □ 70(3646) , Moscow, 25 April 2007. Date of Access: 23 December 2007. http://www.kommersant.ru/doc.aspx?DocsID=759854

United Kingdom

Background

Since the 2007 Heiligendamm Summit, the UK has taken significant action towards complying with its climate change commitments. Nevertheless, in most compliance areas additional actions are required to achieve full compliance. Although the UK is the first country in the world to pass a national Climate Change Bill, it has been criticised for not committing to sufficient emissions cuts. More importantly, despite significant actions, UK emissions continue to rise, and it seems likely that the 2010 domestic GHG emissions reduction goal will not be achieved.

The UK took significant actions to stimulate research and development (R&D) into more efficient and cleaner energy production modalities. In addition, the regulatory framework was amended to create a more conducive environment for more efficient energy production. However, bold and comprehensive actions still lag behind political statements. The UK complied fully with its commitment to promote less emission-intensive energy consumption. Apart from tightening targets to reduce emissions in the transport and housing sector, it advanced legislative change, committed funds for R&D, as well as public information dissemination to create an environment conducive for cleaner energy consumption.

The UK's support to climate adaptation in developing countries is, *inter alia,* targeting poverty eradication. Its purpose is to increase the capacity of developing countries to adapt to the negative impacts of climate change. Yet, although the UK is one of the largest financial contributors to climate adaptation projects in developing countries, its efforts are still considered insufficient by non-governmental actors such as Oxfam. Last but not least, the UK launched projects to reduce Greenhouse Gas emissions (GHG) through curbing deforestation which constitutes a first step towards compliance. In conclusion, the UK is on the right track to meeting its commitments, but substantial actions are still required to ensure full compliance.

Team Leader and Analyst: Diana Poputoaia

United Kingdom	**Score**
1A. Stabilise GHG Concentrations	**0**

The United Kingdom registered only partial compliance with its commitment to stabilise GHG concentrations in the atmosphere. Although it has set a long-term goal for reducing domestic GHG emissions, critics point out that the proposed cuts are not ambitious enough, and that initial domestic targets set

for 2010 are likely to be missed. Consequently, its compliance is judged as "work in progress."

Towards compliance with its commitment, the UK has developed long-term national plans and programmes to reduce GHG emissions. In November 2007, the UK government published the Climate Change Bill,[636] which is expected to receive royal assent by summer 2008.[637] The bill sets out a framework of legally-binding targets to reduce CO_2 emissions by 60 % by 2050, with an interim target of 26 to 30 % by 2020, relative to 1990 levels.[638] It works through a system of five-year carbon budgets, which are set fifteen years in advance, and creates a statutory body -the Committee on Climate Change- to advise the government on achieving its targets, and staying within its carbon budgets. This is a shadow committee until royal assent has been given, and is due to make its first recommendations in September 2008.[639] The bill confers powers, which will enable specific sectoral measures to help cut GHG emissions in the areas of domestic waste and recycling, and transport – through the Renewable Fuel Transport Obligation,[640] and the Carbon Reduction Commitment.[641]

Whilst welcoming the Climate Change Bill, the first of its kind in the world,[642] environmental groups criticised the government for not committing to greater emissions cuts.[643] Friends of the Earth (FoE) argued that the Bill should commit to an 80 % cut by 2050,[644] a target that has also been recommended by Sir Nicholas Stern, the government's adviser on the economics of climate change and development.[645] Environmental groups and the media have further criticised the bill for not including international aviation, or shipping

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[636] Climate Change Bill, House of Lords, (London), 15 November 2007. Date of Access: 19 December 2007.
http://www.publications.parliament.uk/pa/ld200708/ldbills/009/2008009.pdf.
[637] UK Legislation: taking the Climate Change Bill forward, DEFRA, (London), 2007. Date of Access: 19 December 2007.
http://www.defra.gov.uk/environment/climatechange/uk/legislation/index.htm.
[638] Climate Change Bill, House of Lords, (London), 15 November 2007. Date of Access: 19 December 2007.
http://www.publications.parliament.uk/pa/ld200708/ldbills/009/2008009.pdf, p.6.
[639] Committee on Climate Change, DEFRA, (London), 2007. Date of Access: 19 December 2007.
http://www.defra.gov.uk/environment/climatechange/uk/legislation/committee/index.htm.
[640] Climate Change Bill, House of Lords, (London), 15 November 2007. Date of Access: 19 December 2007.
http://www.publications.parliament.uk/pa/ld200708/ldbills/009/2008009.pdf, p.73.
[641] World first Climate Change Bill published, DEFRA, (London), 15 November 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/news/2007/071115b.htm.
[642] World first Climate Change Bill published, DEFRA, (London), 15 November 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/news/2007/071115b.htm.
[643] Emissions cuts not enough, say campaigners, Guardian Unlimited, (London), 30 October 2007. Date of Access: 20 December 2007.
http://www.guardian.co.uk/environment/2007/oct/30/climatechange.greenpolitics.
[644] Climate Change Bill: Friends of the Earth comment, Friends of the Earth, (London), 29 October 2007. Date of Access: 31 December 2007.
http://www.foe.co.uk/resource/press_releases/climate_change_bill_friend_29102007.html.
[645] Climate chief calls for 80 % cuts in greenhouse gas, Guardian Unlimited, (London), 30 November 2007. Date of Access: 20 December 2007.
http://www.guardian.co.uk/environment/2007/nov/30/climatechange.carbonemissions.

emissions within the targets,[646] and for not setting shorter timescale carbon budgets.[647] With regards to the target, on 19 November 2007, Prime Minister Gordon Brown stated in a speech on climate change that an 80 % cut may be necessary,[648] which was the first time he had done so. Nevertheless, he has asked the Committee on Climate Change for advice on the actual necessity to increase the target,[649] and this review has now become a statutory duty.[650]

The UK has continued to enhance its overall understanding of the climate problem, and promoted research,[651] consultations with industry,[652] and public awareness programmes. In October 2007, the government published a report on the implementation of the Stern Review,[653] which outlined a three-pronged strategy of carbon pricing, technology policy, and behavioural change. It has continued its public awareness campaign, "Act on CO_2", which includes an advice line launched in April,[654] a £5 million TV campaign,[655] the launch of an online CO_2 calculator,[656] and the "Climate Change Champion" competition.[657] The Green Neighbourhoods initiative, launched in April, aims to demonstrate

[646] Back from the Brink, Guardian Unlimited, (London), 19 December 2007. Date of Access: 19 December 2007. http://www.guardian.co.uk/environment/2007/dec/19/bali.climatechange.
[647] Where there's a Bill there's a way, WWF-UK, (Surrey), 13 March 2007. Date of Access: 5 January 2008. http://www.wwf.org.uk/news/n_0000003626.asp.
[648] Prime Minister Gordon Brown's Speech on Climate Change, 10 Downing Street, (London), 19 November 2007. Date of Access: 20 December 2007. http://www.number10.gov.uk/output/Page13791.asp.
[649] Brown sets tough targets for reducing carbon, Guardian Unlimited, (London), 20 November 2007. Date of Access: 20 December 2007. http://www.guardian.co.uk/environment/2007/nov/20/carbonemissions.renewableenergy.
[650] Benn announces statutory review of 2050 climate targets, DEFRA, (London),18 February 2008. Date of Access: 6 June 2008. http://www.defra.gov.uk/news/2008/080218a.htm.
[651] The MARKAL modelling programme provides an example. This model was originally used for the Government's Energy White paper, published in May 2007. Defra then commissioned a further study, released in November 2007, to consider the additional economic and technological impacts of reducing UK CO_2 emissions by 70 % and 80 % by 2050, and assessing the impact of including emissions from international aviation. The Report is available at: http://www.defra.gov.uk/environment/climatechange/research/pdf/markal-analysis-cc-targets.pdf.
[652] For example, consultation on the recommendations of the Climate Change Simplification project opened on 18 December 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/corporate/consult/cc-instruments/index.htm. Consultation on the implementation proposals of the Carbon Reduction Commitment opened on 26 June 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/corporate/consult/carbon-reduc/index.htm
[653] Moving to a global low carbon economy: implementing the Stern Review, HM Treasury, (London), October 2007. Date of Access: 20 December 2007. http://www.hm-treasury.gov.uk/media/A/B/pbr_csr07_stern770.pdf.
[654] Benn takes the fight against climate change into homes and communities, DEFRA, (London), 2 April 2008. Date of Access: 6 June 2008. http://www.defra.gov.uk/news/2008/080402a.htm.
[655] Defra launches carbon-cutting drive, Guardian Unlimited, (London), 9 July 2007. Date of Access: 20 December 2007. http://www.guardian.co.uk/media/2007/jul/09/marketingandpr.advertising.
[656] Miliband unveils CO_2 calculator, DEFRA, (London), 20 June 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/news/2007/070620a.htm.
[657] National search for England's 'Climate Change Champion' is launched today, DEFRA, (London), 20 September 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/news/2007/070920a.htm.

how communities can live a low carbon lifestyle, and will give a green makeover to up to 100 neighbourhoods in England with an aim to reduce their carbon footprints by more than 60 %.[658] At the same time, the first report of the UKCIP08 programme was published in December 2007.[659] A UKCIP08 website is currently internally available and will be live for external users from autumn 2008 onwards.[660] This programme provides information to decision makers, academics, and others, on the current climate situation and possible future changes. Lastly, a Code of Best Practice for Carbon Offsetting was announced in February 2008.[661]

Encouragingly, total UK GHG emissions fell between 2005 and 2006,[662] and provisional figures for 2007 show a further drop of 2 %.[663] Whilst this puts the UK on course to exceed the Kyoto emissions reduction targets, it seems as though the 2010 domestic carbon dioxide reduction goal of 20 % is still going to be missed.[664, 665] However, worryingly, the National Audit Office (NAO) has questioned the UK emissions reporting process, and criticised the government for using two different carbon accounting systems.[666] The NAO report says there have been "no reductions in UK carbon dioxide emissions,"[667] if measured by the environmental accounts method. Part of the difference is due to whether emissions from international aviation and shipping are included in the figures. The NAO also questioned the baseline against which to report against the UK domestic goal of a 20 % reduction in carbon dioxide by 2010, stating it is “unclear” and “reflects a lack of precision in the way in which the

[658] Benn takes the fight against climate change into homes and communities, DEFRA, (London), 2 April 2008. Date of Access: 6 June 2008. http://www.defra.gov.uk/news/2008/080402a.htm.
[659] Climate change initiative welcomed, DEFRA, (London), 7 December 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/news/2007/071207a.htm.
[660] SW Climate Change Impact Scoping Study, Our South West, 2008. Date of Access: 27 June 2008. http://www.oursouthwest.com/climate/scopingstudy.htm.
[661] Benn announces Government offsetting code, DEFRA, (London), 19 February 2008. Date of Access: 6 June 2008. http://www.defra.gov.uk/news/2008/080219a.htm.
[662] UK climate change sustainable development indicator: 2006 greenhouse gas emissions, final figures, DEFRA, (London), 31 January 2008. Date of Access: 6 June 2008. http://www.defra.gov.uk/news/2008/080131a.htm.
[663] UK on track to meet Kyoto targets as emissions continue to fall, DEFRA, (London), 27 March 2008. Date of Access: 6 June 2008. http://www.defra.gov.uk/news/2008/080327b.htm.
[664] As stated in the UKCC Annual Report: ‘The projections show that we expect significant reductions in carbon dioxide emissions by 2010. However, the projected fall would not be enough to achieve the domestic goal to reduce carbon dioxide emissions to 20 % below 1990 levels by 2010, which was always designed to be stretching but now looks increasingly difficult to achieve.’ UK Climate Change Programme Annual Report to Parliament, DEFRA, (London), July 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/environment/climatechange/uk/ukccp/pdf/ukcc-annrpt-07.pdf, p 20.
[665] UK emissions figures down, but “much more must be done”: Benn, DEFRA, (London), 31 January 2008. Date of Access: 6 June 2008. See table for projected 2010CO2 figures. http://www.defra.gov.uk/news/2008/080131c.htm.
[666] UK greenhouse gas emissions: measurement and reporting, National Audit Office (London), March 2008. Date of Access: 12 June 2008. http://www.nao.org.uk/publications/0708_greenhouse_gas_emissions.pdf.
[667] UK greenhouse gas emissions: measurement and reporting, National Audit Office (London), March 2008. Date of Access: 12 June 2008. http://www.nao.org.uk/publications/0708_greenhouse_gas_emissions.pdf, p.29.

goal was originally defined, the absence of clear reporting standards, and insufficient consistency and coordination between departments in presenting emissions data."[668] Furthermore, energy analysts have claimed that the reported drop in emissions is not related to government policies, but rather to the rising cost of coal.[669]

In addition, a report in *The Guardian* questioned the government's financial commitment to climate change.[670] The Comprehensive Spending Review highlighted climate change as a key Treasury priority, and announced a 1.4 % per year budget increase for the Department of Environment, Food and Rural Affairs (DEFRA).[671] Yet, a month later, the government announced budget cuts at DEFRA. Sources such as *The Guardian* expect that many schemes intended to deliver the transition to a low-carbon economy will be scaled down, or dropped.[672]

Thus, despite the welcome introduction of the Climate Change Bill, the government's 60 % emissions reduction target is not strong enough. In addition, the government has not introduced policies that enable it to be on track to meet its domestic 2010 carbon dioxide emissions targets. There are also serious concerns about the emissions reporting process, and the exclusion of international aviation and shipping emissions from figures. Consequently, the UK is demonstrating only partial compliance with its commitment to stabilise GHG concentrations.

Analyst: Martha Baxter

United Kingdom	**Score**
1B. Promote Less Emission-Intensive Energy Production	**0**

The UK registered partial compliance with its commitment to promote less emission-intensive energy production since the G8 Summit at Heiligendamm. The UK government re-affirmed its pledge to increase the share of renewable sources of energy to constitute 20 % of UK electricity generation, and 20 % of total European energy by 2020. Yet significant action towards these goals has

[668] UK greenhouse gas emissions: measurement and reporting, National Audit Office (London), March 2008. Date of Access: 12 June 2008. http://www.nao.org.uk/publications/0708_greenhouse_gas_emissions.pdf, p.5.
[669] Cut in coal burning brings UK emissions down by 2%, Guardian Unlimited, (London), 28 March 2008. Date of Access: 16 April 2008. http://www.guardian.co.uk/environment/2008/mar/28/fossilfuels.carbonemissions.
[670] Climate change department faces £300 million cuts, Guardian Unlimited, (London), 17 November 2007. Date of Access: 20 December 2007. http://www.guardian.co.uk/environment/2007/nov/17/climatechange.carbonemissions1
[671] Pre-Budget Report and Comprehensive Spending Review, HM Treasury, (London), 2007. Date of Access: 20 December 2007. http://www.hm-treasury.gov.uk/pbr_csr/pbr_csr07_index.cfm.
[672] Climate change department faces £300 million cuts, Guardian Unlimited, (London), 17 November 2007. Date of Access: 20 December 2007. http://www.guardian.co.uk/environment/2007/nov/17/climatechange.carbonemissions1.

lagged behind rhetoric. It took concrete positive steps towards developing, and commercialising low-carbon energy production, such as the announcement of a competition for one of the world's first Carbon Capture and Storage (CCS) demonstrations,[673] increased funding for the Environmental Transformation Fund (ETF),[674] and plans for a major expansion in offshore wind energy.[675] Yet, a number of environmental NGO's and political opponents criticised the government for failing to intervene decisively in sectors which, as the Stern report argues, are most distorted by market failures.[676] Its renewed commitment to nuclear power has likewise been viewed by some as a misguided "technological mega-fix" to decarbonising the economy.[677]

Political commitment that waned at the outset, was publicly reconfirmed during the compliance period. In August 2007, a leaked paper dealt a blow to the government's credibility, revealing that the UK government was seeking to dilute its commitment to the EU renewables target by lobbying for "statistical interpretations of the target that would make it easier to achieve."[678] This paper appeared to confirm suspicions that the government was "speaking with one intent, but acting with another" on climate change.[679] Yet, during the year, the government repeatedly made a strong case for a low-carbon economy. In speeches on climate change in November 2007 and May 2008, Prime Minister Gordon Brown emphasised that the UK was "completely committed to meeting [its] share" of the EU goal,[680] and that the transformation of its energy economy demanded "no less than a fourth technological revolution."[681] The Queen's Speech meanwhile confirmed the Climate Change, Energy, and

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673 Gordon Brown's speech on climate change at the Foreign Press Association, 10 Downing Street, (London), 19 November 2007. Date of Access: 3 January 2008. http://www.number10.gov.uk/output/Page13791.asp.
674 2007 Pre-Budget and Comprehensive Spending Review: Meeting the Aspirations of the British People, HM Treasury, (London), 9 October 2007. Date of Access: 17 December 2007. http://www.hm-treasury.gov.uk/media/C/8/pbr_csr07_chapter7_258.pdf.
675 The UK Meeting the Energy Challenge with Europe, BERR, (London), 10 December 2007. Date of Access: 17 December 2007. http://www.berr.gov.uk/pressroom/Speeches/page42831.html.
676 Response to the Consultation on the Reform of the Renewables Obligation, WWF-UK, (Surrey), August 2007. Date of Access: 17 December 2007. http://www.wwf.org.uk/filelibrary/pdf/wwfs_response_to_ro_reform.pdf.
677 Green Advisers Dismiss Nuclear Plans as 'Megafix' Solution, Guardian Unlimited, (London), 16 January 2008. Date of Access: 10 June 2008. http://www.guardian.co.uk/environment/2008/jan/16/nuclearpower.energy2
678 Revealed: Cover-up Plan on Energy Target, Guardian Unlimited, (London), 13 August 2007. Date of Access: 4 January 2008. http://www.guardian.co.uk/environment/2007/aug/13/renewableenergy.energy.
679 A Joint Response to the Leaked UK Government's Draft 'Options Paper' on the EU's 2020 20 % Renewable Energy Targets, Friends of the Earth (FoE) and WWF-UK, (Surrey), 23 October 2007. Date of Access: 17 December 2007. http://www.wwf.org.uk/filelibrary/pdf/final_foe_wwf_critique.pdf.
680 Gordon Brown Speech on Climate Change at the Foreign Press Association, 10 Downing Street, (London), 19 November 2007. Date of Access: 3 January 2008. http://www.number10.gov.uk/output/Page13791.asp.
681 Gordon Brown Speech on Climate Change at the Prince of Wales Business Summit, 10 Downing Street, (London), 1 May 2008. Date of Access: 8 June 2008. http://www.number-10.gov.uk/output/Page15424.asp.

Planning Bills as the three pillars of UK climate change policy.[682] The latter two are particularly relevant for the future deployment of cleaner energy production, as the Renewables Obligation (RO) is reformed, and the current planning system streamlined to overcome the delays that impede new developments.[683]

However, despite promises that the Energy Bill would drive "a greater deployment of renewables and enable investment in carbon capture and storage and offshore gas infrastructure,"[684] it was described by environmental organisations such as Friends of the Earth (FoE) as "tinkering in the margins."[685] The concurrent publication of the Nuclear White Paper, outlining a new generation of nuclear power stations "as part of the UK's strategy for a secure, diverse, low carbon energy mix,"[686] led critics to claim that the renewed government commitment to nuclear energy will simply detract from the "great national energy-efficiency drive that politicians continue to avoid."[687]

The government meanwhile took steps towards the research and development (R&D) of other clean energy production technologies. Most notably, Gordon Brown officially announced the first CCS demonstration competition in November 2007. This large-scale project, called for by the International Energy Agency (IEA),[688] is expected to establish the technical and commercial viability of CCS technology by 2014, and the government has pledged to provide up to 100 % of the additional capital and operating costs incurred by developers.[689] The Technology Strategy Board also launched competitions, representing an investment of £22 million, for the development of energy efficiency technologies and improvements in low-carbon energy

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[682] Transcript of the Queen's Speech, 10 Downing Street, (London), 6 November 2007. Date of Access: 4 January 2008. http://www.number10.gov.uk/output/Page13709.asp.
[683] 'Snail's Pace' Planning System Producing Millions of Additional Tons of Carbon, BERR, (London), 17 September 2007. Date of Access: 17 December 2007. http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=315057&NewsAreaID=2&NavigatedFromDepartment=True.
[684] UK Government Invites New Nuclear Power Into The Energy Mix, BERR (London), 10 January 2008. Date of Access: 8 June 2008. http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=343892&NewsAreaID=2&NavigatedFromDepartment=True.
[685] Nuclear Power is Not the Answer: Major Renewables Boost Urgently Needed, FOE, (London), 9 January 2008. Date of Access: 10 June 2008. http://www.foe.co.uk/resource/press_releases/nuclear_power_is_not_the_a_09012008.html.
[686] UK Government Invites New Nuclear Power Into The Energy Mix, BERR, (London), 10 January 2008. Date of Access: 8 June 2008. http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=343892&NewsAreaID=2&NavigatedFromDepartment=True.
[687] Presenting Nuclear as the Grown-Up Option is Deceptive and Delaying, Guardian Unlimited, (London), 11 January 2008. Date of Access: 8 June 2008. http://www.guardian.co.uk/commentisfree/2008/jan/11/uk.comment.
[688] Toward a Clean, Clever and Competitive Energy Future, International Energy Agency Report to the G8 Summit in Heiligendamm, Germany, (Paris), 7-9 June 2007. Date of Access: 7 January 2008. http://www.iea.org/textbase/papers/2007/GermanyG8.pdf.
[689] Major Drive to Decarbonise Energy Sources: Prime Minister, BERR, (London), 19 November 2007. Date of Access: 17 December 2007. http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=331669&NewsAreaID=2.

technologies.[690] Nonetheless, new oil and gas licensing rounds were announced in 2008,[691] and Secretary of State for Business, Enterprise and Regulatory Reform (BERR) John Hutton continued to emphasise the importance of fossil fuels to British energy security throughout the period.[692] Yet with CCS commercially unproven, and Budget 2008's promised consultation on CCS regulations and requirements for new power stations yet to come, [693] critics argue that the on-going commitment to fossil fuels is incompatible with UK climate change commitments.[694]

The government continued to promote the R&D of renewable technologies, and, in December 2007, the new Energy Technologies Institute (ETI) launched its first invitation for partners to participate in offshore wind, marine, tidal, and wave energy programmes. John Denham, Secretary of State for Innovation, Universities and Skills, said the institute represented the UK's commitment to "transforming our energy supply, delivery, and consumption through R&D excellence and innovation."[695] However, progress remains slow, and the Renewables Advisory Board has urged more "aggressive" government support for the marine renewables sector in particular.[696]

The government endorsed a number of projects for the expansion of existing technologies, and the adaptation of regulatory frameworks. In December 2007, Hutton announced a large-scale expansion of UK offshore wind power in a "third round" of development in the North Sea, forecast to create 33 Giga watt (GW) of clean electricity altogether by 2020.[697] In addition to the launch of a study into the feasibility of an 8640 Megawatt (MW) barrage on the Severn Estuary,[698] other innovative new developments that received consent

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[690] Autumn 2007 Competition, Technology Strategy Board, (London), 8 November 2007. Date of Access: 7 January 2008. http://www.technologyprogramme.org.uk/.
[691] Increased Oil Production Starts at Some, BERR, (London), 28 May 2008. Date of Access: 8 June 2008. http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=368724&NewsAreaID=2&NavigatedFromDepartment=True.
[692] John Hutton, The Future of Utilities: Speech to the Adam Smith Insititute, BERR, (London), 10 March 2008. Date of Access: 7 June 2008. http://www.berr.gov.uk/pressroom/Speeches/page45211.html.
[693] Budget 2008, Stability and Opportunity: Building a Strong, Sustainable Future, HM Treasury, (London), 12 March 2008. Date of Access: 10 June 2008. http://www.hm-treasury.gov.uk/budget/budget_08/bud_bud08_index.cfm.
[694] Government Backs Coal-Fired Power Stations, Guardian Unlimited, (London), 10 March 2008. Date of Access: 10 June 2008. http://www.guardian.co.uk/politics/2008/mar/10/greenpolitics.energy.
[695] The Energy Technologies Institute Commences Operations with the Announcement of its First Technology Programmes, ETI, (Loughborough), 17 December 2007. Date of Access: 7 January 2008. http://www.energytechnologies.co.uk/news/the-energy-technologies-institute-commences-operations/.
[696] New RAB Report Assesses Progress With Developing Wave and Tidal Stream Power Technologies, BERR, (London), 7 February 2008. Date of Access: 8 June 2008. http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=350899&NewsAreaID=2&NavigatedFromDepartment=True.
[697] The UK Meeting the Energy Challenge with Europe, BERR, (London), 10 December 2007. Date of Access: 17 December 2007. http://www.berr.gov.uk/pressroom/Speeches/page42831.html.
[698] John Hutton Calls for Open Minds on the Future of the Severn Barrage, BERR, (London), 25 September 2007. Date of Access: 7 January 2008.

during the compliance period notably include the 1 GW London Array[699] and a 25 MW Wave Hub off the Cornish Coast.[700] Further, BERR and the Office of Gas and Electricity Markets (Ofgem) launched a joint Transmission Access Review to ensure that the technical, commercial, and regulatory frameworks for managing and connecting new energy to the grid are "fit for purpose" as the renewables industry grows.[701] The government also pledged an overhaul of the Low Carbon Buildings Programme to boost grants for public buildings installing renewable technologies, and remove planning obstacles.[702]

The RO remains the main policy instrument for commercialising renewable technologies. Yet, while the introduction of "banding" in order to diversify the technological mix was viewed as an improvement by NGOs, they argued that proposed reforms fail to tackle the fundamental lack of transparency and uncertain future value of Renewables Obligation Certificate prices.[703] Calls for the introduction of a feed-in tariff system grew louder, but an Energy Bill amendment to secure such tariffs for microgenerators was defeated in April, despite wide cross-party support.[704] BERR also announced that smaller tidal lagoons and barrages would become eligible for extra RO support,[705] and confirmed support for geopressure technology.[706]

In contrast, the 2008 Budget[707] and 2007 Comprehensive Spending Review[708] offered few new incentives for cleaner energy production. While additional

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http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=317256&NewsAreaID=2&NavigatedFromDepartment=True.

[699] Wicks Consents to Walney, BERR, (London), 7 November 2007. Date of Access: 27 December 2007.
http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=328771&NewsAreaID=2&NavigatedFromDepartment=False.

[700] 'Snail's Pace' Planning System Producing Millions of Additional Tonnes of Carbon, BERR, (London), 17 September 2007. Date of Access: 17 December 2007.
http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=315057&NewsAreaID=2&NavigatedFromDepartment=True.

[701] Transmission Access Review: A Call for Evidence for a Review of Transmission Access, Ofgem/BERR, (London), 16 August 2007. Date of Access: 7 January 2008.
http://www.berr.gov.uk/files/file41013.pdf.

[702] April Overhaul for Microgen Grant Scheme & Planning Rules, BERR, (London), 31 March 2008. Date of Access: 7 June 2008.
http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=363816&NewsAreaID=2&NavigatedFromDepartment=True.

[703] Consultation on Reform of the Renewables Obligation, FoE, (London), September 2007. Date of Access: 7 January 2008.
http://www.foe.co.uk/resource/consultation_responses/renewables_obligation.pdf.

[704] MP's Reject Renewable Energy Move, BBC, (London), 30 April 2008. Date of Access: 10 June 2008. http://news.bbc.co.uk/1/hi/uk_politics/7376671.stm.

[705] Major Drive to Decarbonise Energy Sources: Prime Minister, BERR, (London), 19 November 2007. Date of Access: 17 December 2007.
http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=331669&NewsAreaID=2.

[706] Geopressure Wins Support: Energy Minister Backs Low-Carbon Energy Source, BERR, (London), 18 January 2008. Date of Access: 7 June 2008.
http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=346049&NewsAreaID=2&NavigatedFromDepartment=True.

[707] Budget 2008, Stability and Opportunity: Building a Strong, Sustainable Future, HM Treasury, (London), 12 March 2008. Date of Access: 10 June 2008.
http://www.hm-treasury.gov.uk/budget/budget_08/bud_bud08_index.cfm.

funds to the ETF indicate political commitment to the commercialisation of low-carbon techniques, FoE suggest the allocation is insufficient "to help the UK become a world leader in these technologies."[709] The Government has, however, promised a full consultation on the UK renewables programme and how to meet its share of the EU target, including discussion of feed-in tariffs for microgenerators, as well as the publication of a new low-carbon technology strategy, both of which are expected this summer.[710]

In conclusion, the UK government's renewed commitment to ambitious targets reflects a clear acknowledgment of the challenges posed by the transition to a low-carbon economy. Its moves to stimulate and apply the R&D of cleaner modes of energy production, while refining the regulatory framework accordingly, were also broadly positive. Despite this, bold and comprehensive actions in support of the Heiligendamm commitment still lag behind rhetoric in the UK, and therefore warrant the score "work in progress."

Analyst: Mhairi Guild

Addendum:

- On 26 June 2008, Business Secretary John Hutton set out a national renewable energy blueprint designed to slash carbon emissions dramatically, reduce the UK's dependency on oil and gas and claim a valuable share of global green business opportunity.[711] Hutton outlined proposals to enable the UK to meet its proposed 15% renewable energy target by 2020, an increase of 1,000% on current levels. This is likely to include up to a third of electricity coming from renewables as well as significant increases in the use of renewable forms of heat and transport fuels.

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[708] 2007 Pre-Budget and Comprehensive Spending Review: Meeting the Aspirations of the British People, HM Treasury, (London), 9 October 2007. Date of Access: 17 December 2007. http://www.hm-treasury.gov.uk/media/C/8/pbr_csr07_chapter7_258.pdf.

[709] Pre-Budget Report Will Be Key Test of Brown's Green Credentials, FoE, (London), 5 October 2007. Date of Access: 17 December 2007. http://www.foe.co.uk/resource/press_releases/prebudget_report_will_be_k_05102007.html.

[710] Budget 2008, Stability and Opportunity: Building a Strong, Sustainable Future, HM Treasury, (London), 12 March 2008. Date of Access: 10 June 2008. http://www.hm-treasury.gov.uk/budget/budget_08/bud_bud08_index.cfm.

[711] Tenfold renewables increase to propel UK toward low carbon future, BERR, (London), 26 June 2008. Date of Access: 3 July 2008. http://nds.coi.gov.uk/content/detail.asp?ReleaseID=371909&NewsAreaID=2&NavigatedFromSearch=True.

United Kingdom **Score**

1C. Promote Less Emission-Intensive Energy Consumption +1

The United Kingdom has acted comprehensively to comply with its commitment to promote less emission-intensive energy consumption. Since the G8 Summit at Heiligendamm in 2007, the government has set out to tighten its target for vehicle emissions, and to expand the ambit of the target to curb emissions from housing. In order to meet these targets, the Government has advanced various policies, including legislative change, committing funds, promoting research and development, and public information dissemination. Although its actions are not free from criticism, it deserves to be awarded full compliance.

In the transport sector, the government has confirmed its target to adopt Euro V emissions standards, even before they will become mandatory under EU rules.[712] On 29 October 2007, Environment Secretary Hilary Benn introduced the amended Climate Change Bill[713] that backs the Renewable Transport Fuel Obligation that came into force in April 2008.[714] This obligation requires that 5 % of all fuels are supplied from biofuels. In September 2007, the Department of Transport announced that low carbon haulers and buses that are registered as Euro V compliant before 1 October 2009 can claim a discount of up to £500 on Vehicle Excise Duty.[715] To improve the uptake of alternative and more efficient means of transport, the Technology Strategy Board and the Department of Transport are channelling £20 million into research to develop low carbon vehicles as part of the Low Carbon Transport Innovation Strategy, which is the first competition launched under the Low Carbon Vehicles Innovation Platform (LCVIP).[716] In March 2008, Transport Minister Rosie Winterton told a conference that support to the LCVIP was expanded including at least £30 million to support cutting edge R&D projects within the UK.[717] The Department for Transport is also providing funding to

[712] Government extends tax incentives for 'Euro V' low emission buses and lorries, Department for Transport, (London), 6 September 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=312626&NewsAreaID=2&NavigatedFromDepartment=True.
[713] Benn sets out strengthened Climate Change Bill, Department for Environment, Food and Rural Affairs, (London), 29 October 2007. Date of Access: 12 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=326204&NewsAreaID=2&NavigatedFromSearch=True.
[714] About the RTFO, Renewable Fuels Agency, (London), 2008. Date of Access: 27 June 2008. http://www.dft.gov.uk/rfa/aboutthertfo.cfm.
[715] Government extends tax incentives for 'Euro V' low emission buses and lorries, Department for Transport, (London), 6 September 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=312626&NewsAreaID=2&NavigatedFromDepartment=True.
[716] £20 million Government funding for environmentally friendly vehicles, Department for Innovation, Universities and Skills, (London), 21 September 2007. Date of Access: 12 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=316370&NewsAreaID=2&NavigatedFromSearch=True.
[717] Rosie Winterton calls for Technology & Innovation to help cut transport emissions, Department for Transport, (London), 10 March 2008. Date of Access: 27 June 2008.

the new Energy Technologies Institute to develop low carbon transport options.[718] To increase awareness of car buyers, Transport Minister Jim Fitzpatrick, launched the "Best on CO_2" car ranking, an online available ranking system providing information on fuel consumption per type of car.[719] In addition, Transport Minister, Rosie Winterton, launched the new Essential Guide to Travel Planning after research revealed that personal planning of transport could reduce car use by 10 %.[720] Apart from focusing on ground transport, the pre-budget report announced to replace the present Air Passenger Duty with a per plane tax from 1 November 2009 onwards.[721] In this respect, Treasury launched a consultation to identify options for the detailed design of the new per plane duty, to put forward a number of proposals for how it would operate, and to seek views on these proposed options.[722] Furthermore, speaking at the 100th meeting of the International Maritime Organisation (IMO), Transport Secretary Ruth Kelly urged the international community to take further action on reducing GHGs of the shipping industry.[723]

In addition to transport, the government has introduced several initiatives in the building sector. In the first half of 2007, Britain set itself the target to make all new housing carbon neutral by 2016.[724] Since the Heiligendamm Summit in June 2007, the government has worked on extending this target to commercial buildings.[725] To meet this target, it newly introduced the Planning Bill, the Housing and Regeneration Bill, and the Policy Statement on Climate

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http://nds.coi.gov.uk/content/detail.asp?ReleaseID=359077&NewsAreaID=2&NavigatedFromSearch=True.

[718] Rosie Winterton calls for Technology & Innovation to help cut transport emissions, Department for Transport, (London), 10 March 2008. Date of Access: 27 June 2008. http://nds.coi.gov.uk/content/detail.asp?ReleaseID=359077&NewsAreaID=2&NavigatedFromSearch=True.

[719] Most carbon-friendly car rankings go live, Directgov, 31 July 2007. Date of Access: 12 January 2008. http://www.direct.gov.uk/en/Nl1/Newsroom/DG_069559.

[720] Personal travel planning can cut car use by 10%, Department for Transport, (London), 11 October 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=321685&NewsAreaID=2&NavigatedFromSearch=True.

[721] Pre-budget report will help fight climate change, Department for Environment, Food and Rural Affairs, (London), 09 October 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=321151&NewsAreaID=2&NavigatedFromSearch=True.

[722] Aviation Duty: A consultation, HM Treasury, (London), 31 January 2008. Date of Access: 27 June 2008. http://nds.coi.gov.uk/content/detail.asp?ReleaseID=349066&NewsAreaID=2&NavigatedFromSearch=True.

[723] Ruth Kelly urges further action on shipping emissions from the international community, Department for Transport, (London), 16 June 2008. Date of Access: 27 June 2008. http://nds.coi.gov.uk/content/detail.asp?ReleaseID=370838&NewsAreaID=2&NavigatedFromSearch=True.

[724] Guiness, H. (2007): United Kingdom: Sustainable Use of Energy. In: Governing Global Climate Change: St. Petersburg Compliance Report for the 'G8 Plus Five' Countries. G8 Final Compliance Report 2007. M. Banda and Langille, J. Oxford: G8 Research Group Oxford. http://www.g8.utoronto.ca/oxford/2006compliance-ox.pdf.

[725] Boost for local renewable energy from new planning rules, Communities and Local Government, (London), 17 December 2007. Date of Access: 12 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=339180&NewsAreaID=2&NavigatedFromSearch=True.

Change, which together will ensure that 3 million new houses, planned to be built by 2020, will meet the standard of zero-carbon emissions from 2016 onwards.[726] In addition, the bills confer powers as well as responsibilities to local governments to provide for on-site renewable energy and local community energy schemes to help cut carbon emissions from new developments.[727]

As complement to these legislative steps, the Department of Communities and Local Government published guidelines to help the construction industry respond to the challenge to build zero-carbon homes.[728] In addition, the Department for Business, Enterprise and Regulatory Reform launched the consultation phase to draft the government and Industry Sustainable Construction Strategy, which aims to reduce the carbon footprint in the construction sector and the built environment.[729]

With respect to existing buildings and housing, the government has enhanced its public awareness activities, and strengthened financial support to homeowners to green houses. Since June 2007, it has fully rolled out its Home Information Packs and Energy Performance Certificates,[730] which give homeowners a detailed rating on the energy efficiency of their homes. Moreover, buyers whose homes score poorly (currently around one-fifth of all homes) will receive discounted, or free support to enhance energy efficiency from the Green Homes Service.[731] Free energy ratings are also available for boilers to advance the replacement of the currently 4 million inefficient boilers in use.[732] The government is devoting £10 million to pilot smart metres and clip on real time display units in households.[733] To provide financial incentives, the pre-budget report announced measures to reduce the rate of

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[726] Building better homes and empowering communities, Directgov, 7 November 2007. Date of Access: 13 January 2008. http://www.direct.gov.uk/en/Nl1/Newsroom/DG_071327.
[727] Boost for local renewable energy from new planning rules, Communities and Local Government, (London), 17 December 2007. Date of Access: 12 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=339180&NewsAreaID=2&NavigatedFromSearch=True.
[728] Guidance to help industry respond to the zero carbon challenge, Communities and Local Government, (London), 1 October 2007. Date of Access: 13 January 2007. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=318777&NewsAreaID=2&NavigatedFromSearch=True.
[729] Construction industry aims for a sustainable future, Department for Business, Enterprise and Regulatory Reform, (London), 30 July 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=303746&NewsAreaID=2&NavigatedFromSearch=True.
[730] Green findings - Energy Performance Certificates and Home Information Packs, Communities and Local Government, (London), 10 September 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=313221&NewsAreaID=2&NavigatedFromSearch=True.
[731] Helping buyers to make their homes greener and the market more efficient, Communities and Local Government, (London), 14 December 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=338768&NewsAreaID=2&NavigatedFromSearch=True.
[732] Homeowners to get green boiler rating, Directgov, 2 October 2007. Date of Access: 14 January 2008. http://www.direct.gov.uk/en/Nl1/Newsroom/DG_070775.
[733] 40,000 households in Nationwide energy saving experiment, Directgov, 12 July 2007. Date of Access: 12 January 2008. http://www.direct.gov.uk/en/Nl1/Newsroom/DG_069233.

VAT for the most energy-efficient products.[734] Last but not least, on 30 May, Government announced a suite of measures to help economically vulnerable consumers to enhance the energy efficiency of their homes.[735]

The government is addressing efficiency of public buildings, and issuing information and guidance on how public agencies can contribute their share. On 18 September 2007, the Department for Business, Enterprise and Regulatory Reform (BERR) published an online guide to provide information for local authorities how to improve energy efficiency, and thus reduce greenhouse gas emissions.[736] In addition, Environment Minister Phil Woolas and Local Government Minister John Healey announced on 11 March a new £4 million programme to help local authorities tackle climate change.[737] Moreover, from April onwards, councils' success in cutting carbon dioxide emissions will be measured as part of a new performance framework.[738] Further, options for improving energy efficiency across the public sector have been outlined in a consultation document published in December by Minister for the Environment, Woolas, to be acted on in spring 2008.[739] The Chief Information Officer's Council will work with the Information Age Partnership to identify options to decrease the carbon footprint of public sector IT.[740] Through a new fund worth an initial £20 million from the Department for Transport, the public sector will be able to procure lower carbon vehicles, thereby contributing to kick-start the market for low carbon vehicles.[741]

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[734] Pre-budget report will help fight climate change, Department for Environment, Food and Rural Affairs, (London), 09 October 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=321151&NewsAreaID=2&NavigatedFromSearch=True.

[735] Help with fuel bills for the poorest consumers, Department for Business, Enterprise and Regulatory Reform, (London), 30 May 2008. Date of Access: 27 June 2008. http://nds.coi.gov.uk/content/detail.asp?ReleaseID=368987&NewsAreaID=2&NavigatedFromSearch=True.

[736] Guide for greener councils, Department for Business, Enterprise and Regulatory Reform, (London), 18 September 2007. Date of Access: 13 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=315769&NewsAreaID=2&NavigatedFromSearch=True.

[737] £4 million to help local authorities fight climate change, Department for Environment, Food And Rural Affairs, (London), 11 March 2008. Date of Access: 27 June 2008. http://nds.coi.gov.uk/content/detail.asp?ReleaseID=359532&NewsAreaID=2&NavigatedFromSearch=True.

[738] £4 million to help local authorities fight climate change, Department for Environment, Food And Rural Affairs, (London), 11 March 2008. Date of Access: 27 June 2008. http://nds.coi.gov.uk/content/detail.asp?ReleaseID=359532&NewsAreaID=2&NavigatedFromSearch=True.

[739] Woolas calls for the Public sector to lead in energy efficiency, Department for Environment, Food and Rural Affairs, (London), 13 December 2007. Date of Access: 12 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=338381&NewsAreaID=2&NavigatedFromSearch=True.

[740] Minister calls for greener Government IT, Cabinet Office, (London), 20 September 2007. Date of Access: 13 January 2008. http://www.cabinetoffice.gov.uk/newsroom/news_releases/2007/070920_greenerit.aspx.

[741] Multi-million fund for low carbon vans, Department for Transport, (London), 7 November 2007. Date of Access: 14 January 2007. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=328626&NewsAreaID=2&NavigatedFromSearch=True.

Last but not least, the government continues to collect, and disseminate information to raise public awareness, to monitor consumer behaviour, and thus to track actual impacts of its policies. Former Environment Minister Miliband launched a CO_2 calculator designed to analyse people's carbon footprint.[742] The Energy Saving Trust organised the Energy Saving Week from 22 to 28 October, to encourage energy saving behaviour.[743] In addition, the Government published its annual Energy Statistics,[744] the statistical information booklet "Environment in your Pocket,"[745] and the Survey on Public Attitudes.[746]

Despite these comprehensive actions various non-governmental actors have raised criticism. With respect to aviation policy, Friends of the Earth (FoE) criticised that not only the current level of tax, but also Air Passenger Duties have been frozen until the introduction of the per plane tax in 2009.[747] In addition, no action has been taken to cut the £9 billion tax break that the aviation industry receives through not paying VAT on tickets, and duty on kerosene.[748] Regarding transport policy in general, both FoE as well as Green Alliance, an environmental think tank, point to counterproductive policy decisions such as the rise in national rail prices on 1 January 2008,[749] and the widening of the M1 and M25 to enhance traffic flow rather than providing real transport alternatives.[750] On 20 November 2007, the Green Alliance released a report which stressed that only few people are aware of the benefits of smart meters.[751] More generally, a test of environmental leadership jointly released

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[742] 'Act on CO2' calculator launched, Directgov, 10 June 2007. Date of Access: 12 January 2008. http://www.direct.gov.uk/en/Nl1/Newsroom/DG_068658.
[743] Energy Saving Week, Directgov, 22 October 2007. Date of Access: 12 January 2008. http://www.direct.gov.uk/en/Nl1/Newsroom/DG_071056.
[744] Energy Statistics, Department for Business, Enterprise and Regulatory Reform, (London), 2008. Date of Access: 12 January 2008. http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=342163&NewsAreaID=2&NavigatedFromDepartment=True.
[745] The Environment in your Pocket 2007, Department for Environment, Food and Rural Affairs, (London), 9 November 2007. Date of Access: 12 January 2008. http://www.gnn.gov.uk/Content/Detail.asp?ReleaseID=329299&NewsAreaID=2.
[746] 2007 survey of public attitudes and behaviours toward the environment, Department for Environment, Food and Rural Affairs, (London), 14 August 2007. Date of Access: 12 January 2008. http://www.gnn.gov.uk/content/detail.asp?ReleaseID=307306&NewsAreaID=2&NavigatedFromSearch=True.
[747] PBR and Climate Change: The Government Fails to Deliver, Friends of the Earth, (London), 9 October 2007. Date of Access: 13 January 2008. http://www.foe.co.uk/resource/press_releases/pbr_and_climate_change_the_09102007.html.
[748] PBR and Climate Change: The Government Fails to Deliver, Friends of the Earth, (London), 9 October 2007. Date of Access: 13 January 2008. http://www.foe.co.uk/resource/press_releases/pbr_and_climate_change_the_09102007.html.
[749] Rail Fare Rises Highlight Labour's Failings on Transport and Climate, Friends of the Earth, (London), 28 November 2007. Date of Access: 13 January 2008. http://www.foe.co.uk/resource/press_releases/rail_fare_rises_highlight_28112007.html.
[750] Green Alliance verdict on the PBR and CSR, Green Alliance, (London), 9 October 2007. Date of Access: 24 January 2008. http://www.green-alliance.org.uk/grea1.aspx?id=2238.
[751] For our homes to be greener we have to get smart, Green Alliance, (London), 20 November 2007. Date of Access: 24 January 2008. http://www.green-alliance.org.uk/grea1.aspx?id=2368.

by a number of environmental NGOs judged that the UK's current ruling party does not provide sufficient clarity with respect to its actions to create the necessary enabling environment for green living.[752]

In conclusion, the debate over climate policy is increasing in the UK, with the government's plans and proposals being subject to major scrutiny among opposition parties and environmental groups. Nevertheless, these criticisms are levied against small sections of an overall comprehensive programme to promote less emission-intensive energy consumption. The UK has not only set certain targets to improve energy efficiency in various demand sectors, but is also introducing new, and strengthening existing policies to implement these targets, thus deserving a score of full compliance.

Analyst: Marie Karaisl

United Kingdom	**Score**
1D. Support for Climate Adaptation in DCs	**0**

Supporting climate adaptation in developing countries is a stated goal of the UK, and it has become an important element in its development cooperation policies and programmes.[753] On 31 July 2007, Prime Minister Brown announced that the UK is offering a new Environmental Transformation Fund worth US$1.6 billion for investment in clean energy, sustainable forestry, adaptation and environmental protection.[754] Although the UK is also contributing through the Least Developed Countries Fund and the Special Climate Change Fund, Oxfam considers that the support granted by the UK is insufficient.[755]

With respect to the Environmental Transformation Fund recent concerns have been raised as to the conditions under which the funding shall be made available to the developing countries. The *Guardian* claims that the money will not represent additional British aid. It will be administrated by the World Bank mainly in the form of concessionary loans, which poor countries will have to pay back to the UK with interest.[756]

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[752] The Green Standard. Tests for environmental leadership, Green Alliance, Greenpeace, et al., (London), 12 September 2007. Date of Access: 24 January 2008. http://thegreenstandardlive.lemonpreview.com/gstdDefault.aspx?id=2580.
[753] Tackling Climate Change, Department for International Development, (London), 2007. Date of Access: 9 December 2007. http://www.dfid.gov.uk/howwefightpoverty/climate.asp.
[754] Brown's speech at UN, BBC News, 31 July 2007. Date of Access: 17 December 2007. http://news.bbc.co.uk/2/hi/uk_news/politics/6924570.stm. See also: Climate Change: Financing the Challenge, DFID, (London), 11 April 2008. Date of Access: 2 June 2008. http://www.dfid.gov.uk/news/files/climate-etf.asp.
[755] Financing adaptation: why the UN's Bali Climate Conference must mandate the search for new funds. Oxfam International, 4 December 2007. Date of Access: 2 January 2008. http://www.oxfam.org/en/files/bn_bali_financing_adaptaion_0712.pdf.
[756] UK demands repayment of climate aid to poor nations, The Guardian, 17 May 2008. Date of Access: 8 June 2008.

Since the G8 Summit in Heiligendamm, the UK has initiated climate adaptation programmes in several African countries. In July 2007, the Department for International Development (DFID) launched a £3 million programme for boosting efforts to avert hunger crises in Niger. The programme will help communities adapt to climate change through the distribution of improved seed varieties, restocking of livestock, and improved access to water and veterinary services.[757] In November 2007, DFID launched a Malaria Project in Nigeria, which will provide £50 million to support Nigeria's National Malaria Programme in the period of 2007-2011.[758] In November 2007, a Water, Sanitation and Hygiene project of £75 million was launched in Ethiopia. The project will help 3.2 million people access clean water and basic sanitation.[759] It also announced a new ten year development partnership with Uganda worth at least £700 million in aid that will help continue the fight against poverty amongst other activities through investments in water, sanitation, and health projects.[760]

With regards to aiding climate mitigation in developing countries, the government is investing in initiatives that will stimulate capital flows to climate change mitigation projects in developing countries. In this respect, the UK has pledged an initial US$ 200,000 for the Africa Springboard initiative,[761] which will develop Clean Development Mechanism (CDM) projects in sub-Saharan African countries.[762]

During the Bali Conference in December 2007, the UK reiterated its support for climate adaptation programmes in developing countries. To this end, the UK and the Netherlands, together with the World Bank, announced that they would jointly fund a research study to help developing countries understand the costs of adaptation, and ways to prepare for the impacts of climate change. The UK will contribute a £450,000 for this study, and has committed itself to assisting in generating information and data to assess vulnerability, and

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http://www.guardian.co.uk/environment/2008/may/16/climatechange.internationalaidand development.

[757] DFID boosts efforts to avert hunger crises in Niger. Department for International Development, (London), 11 July 2007. Date of Access: 2 January 2007. http://www.dfid.gov.uk/news/files/pressreleases/hunger-crises-Niger.asp.

[758] DFID Nigeria-CURRENT PROGRAMMES. Department for International Development, (London), 23 October 2007. Date of Access: 27 December 2007. http://www.dfid.gov.uk/countries/africa/nigeria-programmes.pdf.

[759] UK pumps £75 million into water and sanitation project for Ethiopia. Department for International Development, (London), 21 November 2007. Date of Access: 15 December 2007. http://www.dfid.gov.uk/news/files/pressreleases/Water-and-Sanitation-ethiopia.asp.

[760] UK announces £700 million aid to Uganda. Department for International Development, (London), 24 November 2007. Date of Access: 15 December 2007. http://www.dfid.gov.uk/news/files/pressreleases/700million-uganda.asp.

[761] Speech by Right Honourable Hilary Benn, UK Secretary of State for Environment, Food and Rural Affairs to the Thirteenth Conference of the Parties to the UN Framework Convention on Climate Change, DEFRA, (London), 13 December 2007. Date of Access: 3 January 2008. http://www.defra.gov.uk/corporate/ministers/speeches/hilary-benn/hb071212.htm.

[762] Springboard initiative for the carbon market in Africa, DEFRA, (London), 12 December 2007. Date of Access: 19 December 2007. http://www.defra.gov.uk/news/2007/071212a.htm.

identify adaptation options.[763] However, the actions taken to support the implementation of adaptation projects have been considered limited by Oxfam, in contrast with the resources actually needed to make a difference to this end.[764]

The UK contributes further to research on climate change adaptation by launching in April 2008 a five year strategy in this respect. The strategy outlines how the UK is going to double its investment in research to £220 million a year by 2010. The emphasis is going to be on climate change, sustainable agricultural growth, governance, and food prices[765].

The rising global food prices have triggered the development of new aid packages. In April 2008, the UK announced a £455 million aid package to address rising global food prices. The package is designed to tackle both short term needs, and long term solutions. The money is going to be used for supporting the World Food Programme, agricultural research, and for boosting the incomes of the poorest people in Ethiopia.[766] In June 2008, this amount was increased to £500 million. The additional money is intended to directly support the food purchasing power of people in Mozambique, Afghanistan, Bangladesh, and Sierra Leone, research to make crops hardier to withstand climate change in Bangladesh, and road building in the Democratic Republic of the Congo, to help farmers to buy supplies, and sell their crops.[767] The UK is also set to help the Caribbean countries to weather storms. In May 2008, Shahid Malik, the International Development Minister, announced the launch of a £2.4 million funding scheme that will cut the risks from climate change and natural disasters that many Caribbean countries face. The scheme will help governments and communities in vulnerable Caribbean countries react and recover from the impact of hurricanes, storms, and rising sea levels.[768]

Considering that only recently climate change adaptation has started being on the agenda of politicians worldwide, UK's performance towards the promotion of research on climate change adaptation can be assessed as satisfactory. However, the concerns raised around the financing conditions under the

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[763] UK Announces New Study on Climate Change Adaptation at Bali. Department for Environment, Food and Rural Affairs, (London), 11 December 2007. Date of Access: 3 January 2008.
http://www.defra.gov.uk/news/2007/071211d.htm.

[764] UK 'must pay more for emissions', BBC News, 28 May 2007. Date of Access: 3 January 2007.
http://news.bbc.co.uk/2/hi/uk_news/6699305.stm.

[765] UK bolsters research into development issues, DFID, (London), 22 April 2008. Date of Access: 3 June 2008. http://www.dfid.gov.uk/news/files/pressreleases/research-strategy.asp.

[766] UK announces aid package to tackle rising global food prices, DFID, (London), 22 April 2008. Date of Access: 5 June 2008. http://www.dfid.gov.uk/news/files/pressreleases/global-action-food-prices.asp.

[767] UK urges global action on food prices, DFID, (London), 3 June 2008. Date of Access: 5 June 2008. http://www.dfid.gov.uk/news/files/pressreleases/global-action-food-prices.asp.

[768] UK to help Caribbean islands weather the storms, DFID, (London), 29 May 2008. Date of Access: 5 June 2008. http://www.dfid.gov.uk/news/files/pressreleases/caribbean-climate-change.asp.

Environmental Transformation Fund questions the commitment of the UK towards actually taking action on climate change adaptation. Therefore, under this commitment the UK's performance is scored 0.

Analyst: Diana Poputoaia

United Kingdom	**Score**
1E. Reducing GHG Emissions by Curbing Deforestation	**0**

During the compliance period, the British government announced funds for various projects aimed at curbing deforestation, and reducing GHG Emission. The UK pledged USD 30 million to help launch the World Bank's Forest Carbon Partnership Facility (FCPF), a project spearheaded at the United Nations Framework Convention on Climate Change at Bali as the "first financial mechanism to pay countries for saving their tropical forests."[769] However, by June 2008 there was no other news either on World Bank's, or on the British Government's websites about FCPF's progress.
An important achievement at Bali was an agreement to include reduction of GHG emissions by curbing deforestation in its discussions. The British newspapers[770] and Government[771] published quotes from the country's Environmental Minister celebrating the decision, and compromising the United Kingdom with efforts to take the discussions forward.

The UK focused predominately on the Congo Basin Rainforest. In December, the British Trade and Development Minister, Gareth Thomas, announced £5 million in funding to help tackle deforestation in the Democratic Republic of Congo. He emphasized that cutting emissions from deforestation is a major action to combat climate change, and called all EU countries to adopt timber procurement policies.[772] The British government gives preference to buy sustainable timber, but it "does not insist on all timber supplied being verified as sustainably produced"- as it is written on the webpage of United Kingdom's Department for Environment, Food and Agriculture (DEFRA).[773]

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[769] Forest Carbon Partnership Facility Takes Aim at Deforestation, World Bank, 11 December 2007. Date of Access: 16 December 2007.
http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21581819~pagePK:64257043~piPK:437376~theSitePK:4607,00.html.
[770] Deal agreed in Bali climate talks, The Guardian Unlimited, (London), 15 December 2007. Date of Access: 16 December 2007.
http://www.guardian.co.uk/environment/2007/dec/15/bali.climatechange4.
[771] Climate change: success at Bali talks, Department for Environment, Food and Rural Affairs, (London), 15 December 2007. Date of Access: 30 December 2007.
http://www.defra.gov.uk/news/latest/2007/climate-1215.htm
[772] EU and UK Local Government must use Legal Sources of Timber, UK Department for International Development, 17 December 2007. Date Access: 18 December 2007.
http://www.dfid.gov.uk/news/files/pressreleases/use-legal-timber.asp
[773] Sustainable forests and illegal logging, Department for Environment, Food and Rural Affairs, Page last modified: 5 November 2007. Date of Access: 19 June 2008.
http://www.defra.gov.uk/environment/internat/forests/index.htm.

On 17 June 2008, Prime Minister Gordon Brown announced initiatives to fight deforestation in Central Africa.[774] He launched the Congo Basin Forest International Fund that will lend money to projects willing to fight climate change by preventing deforestation , and presented a project to develop a £1million high-resolution satellite camera to be used to track illegal logging, and monitor pollution levels and agriculture at the basin. The images will be sent to a satellite ground station to be built in the region as part of a £8million package. The main idea is to help the 51 million inhabitants of the rainforest to establish their land rights, and prevent invasion by loggers.[775]

Moreover, on April the UK Department for International Development (DFID) launched a five-year Research Strategy Program that will be focusing on sustainable agriculture and natural resources management, treating deforestation as a key threat to renewable natural resources.[776] One of the core ideas is to expand research on the possibility to use global carbon markets to fight poverty in tropical forest regions.

The UK's investments in the first half of 2008 show its commitment to curb deforestation. However, it would be of equal importance that the country at the G8 meeting did not separate such efforts from other policies. Ghana and Uganda, for example, have poorly preserved rainforests that could become more threatened by the new rural development projects if curbing deforestation is not treated as a prerequisite for their formulation.

Analyst: C.C. Elia

[774]Gordon Brown launches fund to save Congo rainforest with £58 million from UK, Department for International Development, 17 June 2008. Date of Access: 19 June 2008. http://www.dfid.gov.uk/news/files/pressreleases/congo-basin.asp.
[775] Spy satellite will monitor illegal logging across six African countries, The Independent online edition, (London), 17 June 2008. Date of Access 20 June 2008. http://www.independent.co.uk/environment/nature/spy-satellite-will-monitor-illegal-logging-across-six-african-countries-848506.html.
[776] Putting research at the heart of development, UK Department for International Development, 24 April 2008. Date of Access: 19 June 2008. http://www.dfid.gov.uk/news/files/research-strategy-launch.asp.

United States

Background

The United States has thus far not entirely fulfilled its Heiligendamm commitments on climate change, but has at least partially complied with and addressed all five area. The defining moment of the United States' 2007 energy policy undoubtedly arrived on 19 December with the signing of the Energy Independence and Security Act by President George W. Bush. The act has variously been described as "one of the largest single steps on energy that the nation has taken since the Arab oil embargoes of the 1970's,"[777] as "groundbreaking,"[778] and as an initiative that will improve the energy efficiency of "almost every significant product and tool and appliance that we use."[779] However, detractors including Senator Barbara Boxer argue that "it could have been stronger."[780] This is indicative of the United States' climate change policy since Heiligendamm: adequate but not complete.

The United States' most important energy initiatives include: the new national fuel economy standard of 35 miles per gallon by 2020; increased appliance efficiency standards; the expansion of the renewable fuels standard to nine billion gallons in 2008 and to 36 billion gallons by 2022; the phasing out of incandescent light bulbs within ten years, which would cut light bulb electricity usage by 60 % by 2020; the Combat Illegal Logging Act to outlaw the import, sale or trade in illegally-harvested wood and wood products in the United States; and a United States-Indonesia memorandum on a debt-for-nature ecological agreement.

At the upcoming G8 Summit, the United States is expected to continue to block efforts to reach an agreement on targets for carbon cuts. Chief Climate negotiator for the US, Harlan Watson warned, "Its frankly not do-able for us."[781] However, despite the continued resistance within the Government to binding international emissions reduction targets, domestic policy initiatives may contribute to lowering GHG emissions in a variety of ways.

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[777] John M. Broder, Bush Signs Broad Energy Bill, The New York Times, (Washington, DC), 19 December 2007. Date of Access: 21 December 2007. http://www.nytimes.com/2007/12/19/washington/19cnd-energy.html?hp.

[778] Nancy Pelosi, Pelosi on Energy Bill: 'This is a Choice Between Yesterday and Tomorrow, (Washington, DC), 18 December 2007. Date of Access: 18 December 2007. http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/12-18-2007/0004725193&EDATE=.

[779] Rep. John Dingell, House OKs energy bill; Bush to sign, Los Angeles Times, (Los Angeles), 19 December 2007. Date of Access: 21 December 2007. http://www.chicagotribune.com/services/newspaper/printedition/wednesday/chi-energy_weddec19,0,1728481.story.

[780] Senator Barbara Boxer, in John M. Broder, Bush Signs Broad Energy Bill, The New York Times, (Washington, DC), 19 December 2007. Date of Access: 21 December 2007. http://www.nytimes.com/2007/12/19/washington/19cnd-energy.html?hp.

[781] "Tough 2020 climate goals unachievable-U.S." Gerard Wynn, 3 June 2008, Reuters News. Date of Access: 27 June 2008. http://www.reuters.com/article/environmentNews/idUSN0337238320080603

Team Leader and Analyst: Andy Jones

United States	**Score**
1A. Stabilise GHG Concentrations	**0**

Since the Heiligendamm Summit in June 2007, U.S policy initiatives aimed at stabilising GHG emissions has reflected a market-based regulatory style based on voluntary rules and focused on developing technology. However, the market incentives for business and public utilities to achieve actual GHG emissions reduction have not been adequate to reverse growing domestic GHG emissions, and climate mitigation continues to be hampered by the Government's rejection of specific and binding emissions reduction targets, nationally and internationally.

The broader policy approach that the U.S takes in reference to stabilising GHG emissions is reflected in the negotiating positions it took at the UN Climate Change Conference in Bali, 3-14 December 2007. The U.S. had objected to the two main proposals of the Bali negotiations: 1) to include a specific demand for industrialised nations to cut emissions to 25-40% below 1990 levels by 2020, which scientists have said are necessary to avoid dangerous climate change;[782] , and 2) to have no specific commitment from developing nations, including India and China, to make mandatory cuts.

During the course of the negotations, the U.S. eventually dropped the demand for a commitment from the developing nations. The U.S. also agreed that rich countries will help poorer nations by sharing "clean" low-carbon technology and by setting up a multi- billion-dollar fund to help them adapt to climate change and to widen a future agreement to cover deforestation, which is blamed for one fifth of the world's rising carbon dioxide, the biggest greenhouse gas. [783] However, the U.S. insisted on excluding the commitment to the 25-40 % cut from the "Bali Roadmap"[784]. If US emissions were to remain stable from now until 2012, America would have to cut emissions by more than a third: if they continue growing at the recent rate of 1 % a year, emissions would have to be halved in eight years. [785]

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[782] Executive Summary, UNDP Human Development Report 2007/2008: Fighting climate change: Human solidarity in a divided world. 27 November 2007. Date of Access: 20 December 2007. http://hdr.undp.org/en/reports/global/hdr2007-2008/

[783] "Financing Clean Energy: A Framework for Public Private Partnerships to Adress Climate Change", Speech By Paul Wolfowits, President of World Bank Group's President, EBRD, (London). 13 March 2007. Date of Access: 26 December 2007. http://www.ebrd.com/new/calendar/fce/wolf.pdf

[784] "US Stalls on Bali Targets", Susan Watts Reports, BBC News, 27 December 2007. Date of Access: 29 January 2008. http://news.bbc.co.uk/player/nol/newsid_7140000/newsid_7145500/7145522.stm?bw=nb&mp=wm&news=1&nol_storyid=7145522&bbcws=1

785 "Late-night drama pushes US into climate deal", Juliette Jowit, Caroline Davies and David Adam, The Guardian, 16 December 2007. Date of Access: 29 January 2008. http://www.guardian.co.uk/environment/2007/dec/16/bali.climatechange

US policy has not changed since then. A draft G8 declaration, dated May 5, indicates that Washington wants to make the Major Emitters group the main forum for climate action. It also reiterates the need for commitments from major emerging economies.[786]

Notwithstanding this resistance to internationally-binding emission cuts, the U.S. made significant efforts to encourage technological development and to create incentives for business' voluntary action in order to reduce the dependence of fossil fuels and to reduce GHG emissions. On 5 December 2007, the Chairman of Environmental Quality James Connaughton argued that energy intensive sectors need better economic policy that gives them an incentive to turn over their capital stock into newer, more efficient processes and equipment which many of the mandatory proposals would not be able to achieve.[787] On 29 November 2007, the State Department announced that the CCTP's (Climate Change Technology Programme) budget will increase by a quarter in 2008.[788] The approach is the same on the international level. On 30 November 2007, the US and EU proposed a new environmental goods and services agreement (EGSA) at the WTO's Doha negotiations.[789] The agreement seeks a worldwide elimination of tariffs on a specific list of climate friendly technologies recently identified by the World Bank.

Considering the U.S. has yet to agree to any binding emission reduction targets, nationally and internationally, the proved leadership in technological development and fuel economy and the international support for technological transfer to emerging markets are overshadowed. The U.S. thus receives a rating of 0 for partial compliance with the commitment to "take strong and early action to tackle climate change in order to stabilise greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system".

Analyst: Andy Benica

Addendum:

[786] G8 climate draft shows US blocking mid-term targets", 2 June 2008, Reuters News. Date of Access: 27 June 2008.
http://www.reuters.com/article/newsOne/idUSL0253632320080602

[787] Press Briefing by Chairman of Environmental Quality James Connaughton and Under Secretary of State for Democracy and Global Affairs Paula Dobriansky on U.N. Convention on Climate Change, The White House, (Washington) , 5 December 2007. Date of Access: 26 December 2007. http://www.whitehouse.gov/news/releases/2007/12/20071205-9.html
[788] Fact Sheet on U.S. Global Climate Change Policy, The State Department, (Washington), 29 November 2007. Date of Access: 20 December 2007.
http://www.state.gov/g/oes/rls/fs/2007/95919.htm
[789] U.S., EU Announce New Climate Initiatives for WTO , The United States Mission to the European Union, (Geneva), 30 November 2007. Date of Access: 26 December, 2007.
http://useu.usmission.gov/Dossiers/Environment/Nov3007_USTR_Environment.asp

- On 6 June 2008, a carbon-capping bill aimed at curbing climate change was rejected by the US Senate. Its supporters look to the next president to enact a global warming law as early as 2009.[790]

- On 25 June 2008, the United States expressed its intention to set a quantified national target to reduce greenhouse gas emissions after China and India agreed to curb an expected increase in their emissions in a new carbon-capping treaty to succeed the Kyoto Protocol.[791] Yet, according to a Japanese government source, it is yet uncertain whether the United States will agree to a global goal of cutting greenhouse gas emissions by 50 percent by 2050 at the G8 leaders' summit. Washington wants the main forum for emissions cuts to be the Major Economies Meeting, a dialogue it set up last year to include big emerging economies such as Brazil, China and India with the G8. The next MEM will be held on the sidelines of the G8 on July 9.[792]

United States	**Score**
1B. Promote Less Emission-Intensive Energy Production	**0**

The United States has partially complied with its G8 commitment to promote less emission-intensive energy production. Since the Heiligendamm Summit, the Government passed a far-reaching energy bill, voted on legislation pertaining to tax credits for renewable energy production, and has continued to set aside funds for renewable energy technologies and efficient energy distribution. At the same time, the energy bill passed was a stripped-down version of earlier proposed legislation, other energy legislation has stagnated in Congress, major clean energy initiatives have been slow to start, and plans for President Bush's energy budget for fiscal year 2009 call for cuts in energy-efficiency spending.

In terms of promoting less emission-intensive energy production and non-fossil fuel-based energy sources, the Energy Independence and Security Act of 2007, signed into law by President Bush on 19 December 2007,[793] sets forth to: expand the renewable fuels standard; expand and improve the Department of Energy's (DOE) existing carbon capture and sequestering programme; and invest in geothermal energy by advancing technologies and expending

[790] Climate Bill Dies; Hope for 2009, Reuters, (Washington, D.C.), 9 June 2008. Date of Access: 3 July 2008.
http://www.planetark.com/dailynewsstory.cfm?newsid=48672&newsdate=09-Jun-2008.
[791] U.S. eyes CO2 cut target, China agrees to curb rise in emissions, Japan Today, (Tokyo), 26 June 2008. Date of Access: 3 July 2008.
http://www.japantoday.com/category/politics/view/us-eyes-co2-cut-target-china-agrees-to-curb-rise-in-emissions.
[792] US Not on Board for 2050 Emissions Cut Goal, Reuters, (Tokyo), 27 June 2008. Date of Access: 3 June 2008.
http://www.planetark.com/dailynewsstory.cfm?newsid=49038&newsdate=27-Jun-2008.
[793] John M. Broder, Bush Signs Broad Energy Bill, The New York Times, (Washington), 19 December 2007. Date of Access: 20 December 2007.
http://www.nytimes.com/2007/12/19/washington/19cnd-energy.html?hp

approximately 5,500 megawatts of geothermal energy. With respect to the renewable fuel standard, the new law proposes to expand it to nine billion gallons in 2008 and progressively increase it to 36 billion gallons by 2022 in addition to making a historic commitment to develop cellulosic ethanol by requiring the US to produce 21 billion gallons of advanced biofuels by 2022. In terms of carbon capture and sequestering, the Energy Independence and Security Act of 2007 further requires: a national assessment of the capacity to sequester carbon in geologic and biological ecosystems; an increase in funding for all projects included in the new carbon capture and storage research, development, and demonstration programme; and the Department of the Interior (DOI) to begin development of a regulatory framework for issues associated with geologic storage of CO_2 on public lands.[794]

While the legislation is the most far-reaching US energy policy since 1975 and will lead to "some of the largest CO_2 emissions cuts in [the] nation's history,"[795] it is a stripped-down version of earlier legislation passed by the 110th Congress.[796] Due to threat of White House veto and objections from Senators of oil and gas-dependent states,[797] key provisions were removed from the Act including: a renewable portfolio standard which would have set a target of obtaining 20 % to 25 % of the nation's electricity from renewable resources by 2025 and tax incentives including a production tax credit and investment tax credit for renewable energy industries.[798] The lack of tax incentives for renewable energy development is particularly problematic given the strides the renewable energy sector has made using the already-existing production tax credit, for example the American Wind Energy Association, in its fourth quarter market report indicated that the industry is on track to install 4,000 megawatts of wind capacity; nearly doubling capacity from 2006.[799] However, without a long-term extension of the production tax credit,

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[794] H.R. 6, The Energy Independence and Security Act of 2007 Energy Bill Summary, United States Senate Committee on Energy and Natural Resources, (Washington), 14 December 2007. Date of Access: 20 December 2007. http://www.energy.senate.gov/public/index.cfm?FuseAction=IssueItems.View&IssueItem_ID=58

[795] President Bush Signs H.R.6, the Energy Independence and Security Act of 2007, US Department of Energy, (Washington), 19 December 2007. Date of Access: 20 December 2007. http://whitehouse.gov/news/releases/200712/20071219-6.html

[796] Mark Clayton, Senate Rejects Far-Reaching Energy Bill, The Christian Science Monitor, (Boston), 8 December 2007. Date of Access: 19 December 2007. http://www.csmonitor.com/2007/1207/p25s09-uspo.html

[797] Rockfeller Disappointed that Billions for Clean Coal Set Aside in Energy Bill, States News Services, (Washington), 14 December 2007. Date of Access: 19 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/results/docview/docview.do?risb=21_T2779854749&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T2779854752&cisb=22_T2779854751&treeMax=true&treeWidth=0&csi=8058&docNo=1

[798] Stephen Lacey, U.S. Energy Bill—Early Christmas Present or Lump of Coal? Renewable Energy Access, (Washington), 12 November 2007. Date of Access: 19 December 2007. http://www.renewableenergyaccess.com/rea/news/story?id=50527

[799] Stephen Lacey, U.S. Energy Bill—Early Christmas Present or Lump of Coal? Renewable Energy Access, (Washington), 12 November 2007. Date of Access: 19 December 2007. http://www.renewableenergyaccess.com/rea/news/story?id=50527

due to expire in December 2008, developers may be unsure about the financial viability of such projects.[800]

Proponents of renewable energy were not pleased with early reports of these provisions being dropped from the energy bill. Rhone Resch, president of the Solar Energy Industries Association, claimed the bill maintained the status quo,[801] meaning continued support for coal, oil, and gas industries. Senator Barbara Boxer (D-CA) said of the Energy Independence and Security Act of 2007, "It could have been stronger. It's really unfortunate that we didn't have the renewable electricity standard or the incentives for wind and solar. But we'll fight for those another day."[802]

Indeed, in the months following the passage of the Energy and Security Act of 2007, both houses of Congress presented legislation to extend tax credits for wind and solar power production. In February 2008, the Senate Finance Committee included measures to extend production tax credits for renewable energy through 2009 in its version of an economic stimulus package, originally proposed by President Bush.[803] These tax credits however did not make it into the final stimulus package.[804] Within the same month, the House of Representatives passed the Renewable Energy and Energy Conservation Tax Act of 2008 allowing for more than $17 billion in tax credits and other incentives to promote energy production of solar, wind, and other renewable sources as well as to promote energy conservation, all of which would be financed through ending tax benefits for oil and gas producers.[805] The fate of this bill seems uncertain however given that the senior Republican senator on the Energy and Natural Resources Committee has opposed any effort to end tax incentives for domestic oil and gas producers.[806] In May, the House of Representatives once again tried to push through renewable energy legislation, this time passing the Renewable Energy and Job Creation Act of 2008 which would deliver $54 billion in incentives, including a six-year extension of existing solar power tax credits, a three-year extension of credits on biomass, geothermal, hydro, and waste-to-energy projects, and a one-year

[800] Stephen Lacey, U.S. Energy Bill—Early Christmas Present or Lump of Coal? Renewable Energy Access, (Washington), 12 November 2007. Date of Access: 19 December 2007. http://www.renewableenergyaccess.com/rea/news/story?id=50527
[801] Stephen Lacey, U.S. Energy Bill—Early Christmas Present or Lump of Coal? Renewable Energy Access, (Washington), 12 November 2007. Date of Access: 19 December 2007. http://www.renewableenergyaccess.com/rea/news/story?id=50527
[802] John M. Broder, Bush Signs Broad Energy Bill, The New York Times, (Washington), 19 December 2007. Date of Access: 20 December 2007. http://www.nytimes.com/2007/12/19/washington/19cnd-energy.html?hp
[803] Sen. Finance Committee Adds Renewable Energy Tax Credits to Stimulus Bill, Renewable Energy Access, (Washington), 1 February 2008. Date of Access: 11 June 2008. http://www.renewableenergyworld.com/rea/story?id=51307
[804] Stimulus Package Passes Without PTC Extension, Renewable Energy Access, (Washington), 7 February 2008. Date of Access: 11 June 2008. http://www.renewableenergyworld.com/rea/news/story?id=51388
[805] David M. Herszenhorn, House Passes Renewable Energy Credits, The New York Times, (Washington), 28 February 2008. Date of Access: 12 June 2008. http://www.nytimes.com/2008/02/28/washington/28energy.html?_r=1&oref=slogin
[806] David M. Herszenhorn, House Passes Renewable Energy Credits, The New York Times, (Washington), 28 February 2008. Date of Access: 12 June 2008. http://www.nytimes.com/2008/02/28/washington/28energy.html?_r=1&oref=slogin

extension of credits for wind power.[807] It is also unclear if this bill will make headway in the Senate given the concerns over its funding.[808]

Despite the stalemate between both houses of Congress regarding the way in which to fund renewable energy policy,[809] the Senate was able to pass a bipartisan legislation, The Clean Energy Tax Stimulus Act of 2008, which would provide for the limited continuation of clean energy production and incentives to improve energy efficiency.[810] This Act was included as an amendment to the Foreclosure Prevention Act of 2008.[811] Senate Democrats also drafted Consumer-First Energy Act which would among other things, create a tax on windfall profits of major oil companies not invested in the production of clean fuels; repeal oil and gas tax credits; punish price gouging; and crack down on the Organization of the Petroleum Exporting Countries (OPEC).[812] This bill was not however approved, falling nine votes short of the required number for passage.[813]
The inconsistencies within Congress regarding renewable energy production have been echoed within the White House this period as well. Despite cabinet-level[814] participation in the International Renewable Energy Conference 2008, held in Washington D.C. from 4-6 March and President Bush's statements regarding the importance of renewable energy sources,[815] his proposed energy budget for fiscal year 2009 reduces funding for energy efficiency and renewable energy.[816] This is troubling especially considering the number of projects the DOE has funded this compliance period in an effort to reduce energy-intensive emissions.

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[807] James Murray, US Green Energy Tax Breaks Secure House Victory, Business Green, 22 May 2008. Date of Access: 12 June 2008. http://www.businessgreen.com/business-green/news/2217340/green-energy-tax-breaks-secure
[808] James Murray, US Green Energy Tax Breaks Secure House Victory, Business Green, 22 May 2008. Date of Access: 12 June 2008. http://www.businessgreen.com/business-green/news/2217340/green-energy-tax-breaks-secure
[809] Matt Nauman, Tax Break Stalemate Slows Green Movement, The Mercury News, (California), 4 April 2008. Date of Access: 12 June 2008. http://www.mercurynews.com/localnewsheadlines/ci_9092452
[810] U.S. House Passes Renewable Energy Tax Credit Extension Bill, Renewable Energy Access, (Washington), 22 May 2008. Date of Access: 12 June 2008. http://www.renewableenergyworld.com/rea/news/story?id=52546
[811] Bipartisan Companion for Extension of Renewable Energy Tax Credits Introduced, Renewable Energy Access, (Washington), 9 May 2008. Date of Access: 12 June 2008. http://www.renewableenergyworld.com/rea/news/story?id=53433
[812] S.2991 The Consumer-First Energy Act, Democratic Policy Committee, (Washington), 7 May 2008. Date of Access: 13 June 2008. http://democrats.senate.gov/dpc/dpc-new.cfm?doc_names=1b-110-2-78
[813] Lori Montgomery and Steve Mufson, Big Oil Escapes Windfall Tax, The Chicago Tribune, (Washington), 11 June 2008. Date of Access: 13 June 2008. http://www.chicagotribune.com/news/nationworld/chi-big-oiljun11,0,6453796.story
[814] U.S. Government Announces Cabinet-Level Participation for Washington International Renewable Energy Conference, U.S. Department of Interior, (Washington), 6 February 2008. Date of Access: 12 June 2008. http://www.doi.gov/news/08_News_Releases/080208.html
[815] President Bush Attends Washington International Renewable Energy Conference 2008, Office of the Press Secretary, (Washington), 5 March 2008. Date of Access: 12 June 2008.
[816] Final Bush Budget Eyes Defense Boost, National Public Radio, (Washington), 4 February 2008. Date of Access: 12 June 2008. http://www.npr.org/templates/story.php?storyid=18662513

These projects include $610,000 to support the National Governor's Association's Securing a Clean Energy Future Initiative[817] to help states increase production of cleaner domestic fuels, promote advanced electricity generation, improve energy efficiency and conservation, and accelerate research and development of clean energy technologies;[818] $33.8 million for the support of production cellulosic biofuel;[819] $20 million for next generation solar energy projects;[820] and up to $7.5 million for research and development to help advance the viability and cost-effectiveness of advanced water power systems.[821] The DOE has also selected three venture capital firms to participate in a program which will give renewable energy start-up companies access to the federal government's laboratories for research and development purposes.[822]
The DOE also released a report in May on the feasibility of harnessing wind power to provide up to 20 % of the nation's total electricity needs by 2030.[823] Despite this, and the fact that it has also pledged up to $51.8 million for the purposes of modernizing the US electric grid system,[824] no new projects as yet are focused on clean coal technologies or using renewable energy sources for generating electricity on a federal level.[825]

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[817] DOE Counts $610,000 to Support NGA's Efforts to Further State-Level, Department of Energy, (Washington), 12 September 2007. Date of Access: 20 December 2007. http://energy.gov/news/5489.htm
[818] Incoming NGA Unveils New Incentive, National Governors Association, (Washington), 23 July 2007. Date of Access: 20 December 2007. http://www.nga.org/portal/site/nga/menuitem.6c9a8a9ebc6ae07eee28aca9501010a0/?vgnextoid=074d60ca8c1c3110VgnVCM1000001a01010aRCRD&vgnextchannel=759b8f2005361010VgnVCM1000001a01010aRCRD
[819] Department of Energy to Make up to $33.8 Million to Support Commercial Production of Cellulosic Biofuels, Department of Energy, (Washington), 27 August 2007. Date of Access: 20 December 2007. http://energy.gov/new/5340.htm
[820] Department of Energy to Invest More Than $20 Million for Next Generation Solar Energy Projects, Department of Energy, (Washington), 8 November 2007. Date of Access: 20 December 2007. http://energy.gov/news/5690.htm
[821] Feds Fund Energy Generation from Ocean Waves, Tides, Environment News Service, (Washington), 5 May 2008. Date of Access: 12 June 2008. http://www.ens-newswire.com/ens/may2008/2008-05-05-092.asp
[822] U.S. DOE to Give Renewable Startups Access to Labs, Reuters, (Los Angeles), 27 February 2008. Date of Access: 12 June 2008. http://uk.reuters.com/article/privateEquity/idUKN2749086520080227
[823] Wind Energy Could Produce 20 % of U.S. Electricity by 2030, News Blaze, (Washington), 12 May 2008. Date of Access: 12 June 2008. http://newsblaze.com/story/20080512112216tsop.nb/topstory.html
[824] DOE Provides up to $51.8 Million to Modernize the US Electric Grid System, National Energy Technology Laboratory, (Washington), 27 June 2007. Date of Access: 20 December 2007. http://www.netl.doe.gov/publications/press/2007/5180.html
[825] Several clean coal technology initiatives have been undertaken at the state level. See Iowans Want Energy Conservation Before New Coal Plants, Environmental News Service, (Des Moines, IA), 21 December 2007. Date of Access: 21 December 2007. http://www.ens-newswire.com/ens/dec2007/2007-12-21-093.asp; Bob Matyi, Duke Gets Go-Ahead for Indiana 630-MW IGCC Plant, Platts Coal Outlook, (Washington), 26 November 2007. Date of Access: 20 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/homesubmitForm.do ; Centre for Energy and Economic Development Joins Industry Coalition to Issue Recommendations Ahead of Governor Ritter's Colorado Climate Action Plan, PR Newswire, (Denver, CO), 18 October 2007. Date of Access: 20 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/homesubmitForm.do

In this vein, what furtive steps[826] had been taken in the FutureGen Alliance project to create the first American utility-scale zero-emissions coal-powered electrical plant since the Heiligendamm Summit have come to a halt for the time being given that the DOE has pulled its funding for the initiative citing the project's escalating budget as a factor.[827] Instead, the DOE is budgeting $241 million for several commercial power-plant projects that will capture and store a smaller share of their emissions—this plan is said to be more cost-effective than the FutureGen project.[828]

Because the cost of implementing clean coal technologies is high, it "will significantly increase the cost of electricity"[829] if undertaken at present, as was reported at the 1 August 2007 Senate Energy Committee Hearing.[830] Experts at the hearing further stated that unless Congress boosts federal funding and revamps certain emissions regulations—including the New Source Review programme provision of the federal Clean Air Act, which prevents utilities from making basic efficiency improvements that would increase their power output without boosting their emissions—clean coal technologies will remain very expensive and limited in scope.[831] At the same time, the US is currently aiding China[832] and Uruguay[833] in developing cleaner coal technologies.

Overall, the U.S. has been quite active in working to promote less emission-intensive energy production with several policy initiatives since the

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[826] Mark Clayton, FutureGen to Build 'Clean Coal' Plant in Illinois, The Christian Science Monitor, (Boston), 19 December 2007. Date of Access: 20 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/homesubmitForm.do

[827] Rebecca Smith and Stephen Power, After Washington Pulls Plug on FutureGen, Clean Coal Hopes Flicker, The Wall Street Journal, (Washington), 2 February 2008. Date of Access: 12 June 2008. http://online.wsj.com/article/SB120192661667637793.html?mod=googlenews_wsj

[828] Mark Clayton, U.S. Scraps Ambitious Clean-Coal Power Plant, Christian Science Monitor, (Boston), 1 February 2008. Date of Access: 12 June 2008. http://www.csmonitor.com/2008/0201/p25s01-usgn.html

[829] In Clean-Coal Technology Depends on Funding, Govt. Backing, Platts Coal Outlook, (Washington), 6 August 2007. Date of Access: 21 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/homesubmitForm.do

[830] Senate Panel Hears Support for Clean Coal Technologies, CongressNow, (Washington), 3 August 2007. Date of Access: 21 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/homesubmitForm.do

[831] Clean Coal Technologies Need Funding, Regulatory Fixes to Thrive, Experts Say, Inside Energy with Federal Lands, (Washington), 6 August 2007. Date of Access: 21 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/homesubmitForm.do

[832] US and China Companies Sign Historic Venture Agreement Applying Clean Coal Technologies to Become China's "Pollution Solution": Beijing Press Conference on Innovation Set for Tuesday, November 6th, Business Wire, 4 November 2007. Date of Access: 20 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/results/docview/docview.do?risb=21_T2783141510&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T2783141513&cisb=22_T2783141512&treeMax=true&treeWidth=0&csi=7924&docNo=4

[833] U.S. Trade and Development Agency Grants Supports Clean Coal Technology in Uruguay, US Federal News, (Washington), 27 September 2007. Date of Access: 20 December 2007. http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/results/docview/docview.do?risb=21_T2783170724&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T2783170729&cisb=22_T2783170728&treeMax=true&treeWidth=0&csi=282801&docNo=1

Heiligendamm Summit. This is in part surprising given the obstacles put up by US delegates at the Bali Conference on Climate Change regarding pollution and greenhouse gas emission reduction targets.[834] It is also surprising given the inconsistencies between the Bush Administration's statements and actions related to clean energy.[835] Despite this, the 110th Congress was resolute in drafting legislation aimed at changing energy policy in the U.S. While the recent energy bill does address some aspects of less-emission intensive energy production, it lacks any provisions for renewable electricity, incentives for renewable energy production, or repeals of tax incentives for oil, gas, and coal producers. As yet, Congress has been unable to agree on and enact any legislation to counteract this. Other clean energy production projects are underway, albeit slowly and a major clean coal initiative has been scrapped in favor of a smaller-scale more cost-effective plan. Thus, the US is only found to be in partial compliance with this commitment.

Analyst: Nadia Siddiqui

United States	**Score**

1C. Promote Less Emission-Intensive Energy Consumption +1

The United States has an imperfect yet strong record of compliance with its commitment to improve energy consumption efficiency. While corporate and industrial efficiency has generally lagged behind household and vehicle efficiency, the net result has been positive with significant progress made in a number of key areas. Undermining these advances is the administration's insistence on a national energy strategy, blocking moves by states to implement stricter emissions standards.[836]

In comparison to industrial and vehicle efficiency, household energy utilisation has received the most attention from the Bush administration. In June 2007, the Department of Energy (DOE) launched a national television campaign urging homeowners to switch to compact florescent lighting (CFL)[837]. A 20-day awareness campaign in October 2007 resulted in

[834] Bali Conference: World Unity Forces US to Back Climate Deal, The Independent, (London), 16 December 2007. Date of Access: 20 December 2007. http://environment.independent.co.uk/climate_change/article3255688.ece
[835] FY'09 Budget Request a Disappointing 'Second Act' to President's Lofty State of the Union Goals, Business Wire, (Washington), 4 February 2008. Date of Access: 12 June 2008. http://www.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20080204006510&newsLang=en
[836] E.P.A. Denies California Emission's Waiver, NewYorkTimes.com, Micheline Maynard, 19 December 2007. Date of Access: 3 January 2008. http://www.nytimes.com/2007/12/19/washington/20epa-
[837] Department of Energy and Disney Join Forces to Promote Energy Savings, Department of Energy, (Washington), 14 June 2007. Date of Access: 6 December 2007. http://www.energy.gov/news/5131.htm

approximately one million Americans pledging to switch to CFL.[838] The Energy Independence and Security Act, signed by President Bush on 19 December 2007, calls for phasing out incandescent light bulbs within ten years.[839] If accomplished, the switch would cut light bulb electricity usage by 60 % by 2020.[840] Efficient lighting also got a boost in May 2008 when the DOE announced the L Prize, a competition to design next-generation solid-state lighting. To be eligible, entries must consume less than 17 % of the electricity used to power incandescent lamps.[841] The DOE has paid particular attention to appliances in its bid to increase household efficiency across the board. On 19 November 2007, the DOE raised efficiency standards for domestic boilers and furnaces. The new regulations enter into force in 2015.[842] Beginning 1 November 2008, televisions that carry the EPA's Energy Star rating will have to use 30 % less energy than other models.[843] Efficiency standards for clothes washers will also increase. Energy Star washers will have to be 43 % more efficient by 1 July 2009 and 59 % by 1 January 2011 to maintain their rating.[844] Water heaters, both gas and solar are also getting an Energy Star upgrade, with efficiency improvements ranging from 6.9 % to 30 % depending on the model and technology.[845] The DOE is also looking at houses themselves for areas where energy can be conserved. In June 2007, the remaining $88 million of a $200 million DOE campaign to weatherise low-income family homes was authorised and distributed to 20 states. The DOE estimates 70,000 homes will be weatherised during the yearlong programme.[846] However, the department's weatherisation program took a hit in February 2008 when the new budget was announced. For 2009, only $59 million has been allocated to low-income weatherisation.[847]

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[838] Have You Seen the Light? Nearly 1 Million Take Pledge to Make Energy Efficient Change, Department of Energy, (New York), 23 October 2007. Date of Access: 6 December 2007. http://www.energy.gov/news/5655.htm

[839] House, 314-100, Passes Broad Energy Bill; Bush Plans to Sign It, The New York Times, John M. Broder, (Washington), 19 December 2007. Date of Access: 19 December 2007. http://www.nytimes.com/2007/12/19/washington/19energy.html

[840] Light Bulbs, Gas Changing as U.S. Energy Bill Passes, Bloomberg.com, Daniel Whitten, 18 December 2007. Date of Access 18 December 2007. http://www.bloomberg.com/apps/news?pid=20601070&sid=aPxA08AwZUfk&refer=home

[841] US Department of Energy Announces Bright Tomorrow Lighting Prize Competition, Department of Energy, Energy Efficiency and Renewable Energy (Washington), 29 May 2008. Date of Access: 8 June 2008. http://www1.eere.energy.gov/news/progress_alerts/progress_alert.asp?aid=265

[842] DOE Increases Energy Efficiency Standards for Residential Furnaces & Boilers, Department of Energy, (Washington) 19 November 2007. Date of Access: 5 December 2007. http://www.energy.gov/news/5743.htm

[843] US Moves To Cut Energy Use By Televisions, 5 February 2008. Date of Access: 4 June 2008. http://www.reuters.com/article/environmentNews/idUSN0521467020080206

[844] US Department of Energy Implements More Stringent Criteria for Energy Star Clothes Washers, Expands CFL Program, Department of Energy, (Washington), 7 March 2008. Date of Access: 2 June 2008. http://www.energy.gov/news/6055.htm

[845] US Department of Energy Implements Griteria for Energy Star Water Heaters, Department of Energy, (Washington), 1 April 2008. Date of Access: 6 June 2008. http://www.energy.gov/news/6134.htm

[846] Department of Energy Provides Nearly $88 Million to Low-Income Families for Home, Department of Energy, Weatherization, (Washington), 29 June 2007. Date of Access: 7 December 2007. http://www.energy.gov/news/5190.htm

[847] Bush Budget Boosts Nuclear, Coal, Science, 4 February 2008. Date of Access: 3 June 2008. http://www.reuters.com/article/newsOne/idUSN0455267920080204

Policy actions are also advancing energy efficiency in industry. On 30 November 2007, the "Super Boiler", a product of DOE lab research, finished its one-year test run.[848] DOE officials plan to put the boilers, which deliver 94 % thermal efficiency, through another set of trials to make sure they are ready for widespread commercial use. Such efforts to move technologies from the laboratory to the market have increased recently. In a Policy Statement in February 2008, the DOE streamlined the process for technology transfers to the private sector.[849] In addition, the DOE has selected three venture capital firms to be part of its Entrepreneur in Residence program that provides access to DOE labs to evaluate the commercial prospects of developing technologies.[850]

The DOE has cultivated a number of partnerships over the past year. On 18 September 2007, the department signed a Memorandum of Understanding with The Green Grid, a non-profit consortium of technology companies, to cooperate on creating best practices for improving data center efficiency.[851] In an effort to improve commercial transport efficiency, the Environmental Protection Agency's (EPA) Smartway Transport Partnership along with the Association of Port Authorities introduced a pilot programme to provide low-cost loans for company's purchasing fuel-efficient diesel trucks.[852] If the trial programme in Virginia goes well, it will be expanded nationwide. A joint venture between the National Marine Sanctuary Program and the DOE began 29 January 2008. The program, mandated in the Energy Policy Act of 2005, seeks to use DOE expertise to identify aspects of the marine sanctuary program that are inefficient.[853] The DOE also recently completed its 500th Industrial Energy Savings Assessment (ESA). The program inspects energy-intensive facilities and assesses the efficiency of its systems, identifying areas for improvement. To date, the DOE estimates ESAs have saved 80 million BTUs of natural gas.[854]

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[848] New "Super Boiler" Technology Tested In Alabama Could Create Billions in Savings for U.S. Companies, Yahoo! Finance, (Birmingham, AL), 30 November 2007. Date of Access: 11 December 2007. http://biz.yahoo.com/bw/071130/20071130005313.html?.v=1

[849] DOE Announces Technology Transfer Policy To Move Cutting-Edge Technology Research to the Marketplace, (Washington), 8 February 2008. Date of Access: 5 June 2008. http://www.energy.gov/news/5977.htm

[850] Department of Energy Selects Venture Capital Firms to Accelerate Adoption of Advanced Energy Technologies, Department of Energy, (Washington), 27 February 2008. Date of Access: 1 June 2008.

[851] The Green Grid Announces Collaboration Agreement with the Department of Energy, Yahoo! Finance, (New York/San Francisco), 18 September 2007. Date of Access: 8 December 2007. http://biz.yahoo.com/bw/070918/20070918006249.html?.v=1

[852] Loan Program to Help Pay for Cleaner Diesel Trucks in Norfolk, Department of Environmental Protection, (Norfolk, VA), 3 October 2007. Date of Access: 18 December 2007. http://yosemite.epa.gov/opa/admpress.nsf/eebfaebc1afd883d85257355005afd19/ff9377a9ec8d159185257369004f730b!OpenDocument

[853] NOAA and US Department of Energy Expand Efforts to Increase Energy Efficiency at the National Marine Sanctuaries, Department of Energy, (Washington), 29 January 2008. Date of Access 2 June 2008. http://www.energy.gov/news/5910.htm

[854] US Department of Energy Announces Completion of 500 Industrial Energy Savings Assessment, Department of Energy, (Washington), 9 May 2008. Date of Access: 4 June 2008. http://www.energy.gov/news/6235.htm

Consumer vehicle efficiency, often neglected in the United States, has also received significant attention. On 20 September 2007, the DOE signed a five-year agreement with China's Ministry of Science and Technology to cooperate on automobile efficiency. The plan includes cooperation on electric, hybrid, fuel cell and alternative fuel vehicles.[855] Most importantly for the United State's overall compliance, is the Energy Independence and Security Act. The bill includes provisions to raise the Corporate Average Fuel Economy (CAFE) standards 40 % to 35 miles per gallon by 2020 as well as tax incentives on hybrid vehicles.[856]. However, the Bush administration blocked a move that would allow states to impose even stricter vehicle emissions requirements. On 19 December 2007, the EPA rejected California's bid for a waiver that would allow the state to independently set emissions standards.[857] On 3 January 2008, 15 states joined California in a suit against the EPA seeking to reverse the decision.[858] The legal battle remains ongoing.[859] The DOE has also embraced public-private partnerships in the automotive area. In March, the department authorised a $3.5 million grant to the X Prize Foundation to fund the Automotive X Prize. The competition, which awards over $10 million in prizes, challenges private teams to create production-ready cars capable of 100mpg.[860] The program is similar to Challenge X, a competition run by the DOE and General Motors. In May 2008, Mississippi State won the challenge by modifying a production Chevrolet to become 38 % more efficient.[861]

In summary, the United States has made significant progress in improving vehicle and household efficiency, as well as gains in corporate and industrial efficiency. Increasing cooperation between the government and private sector has also been a positive trend. Detracting from these improvements is the U.S. administration's unwillingness to allow individual states to set even more stringent emissions standards. Yet, overall, the United States was found to be in full compliance with this commitment.

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[855] US signs 5-year cooperation plan with China's Ministry of Science and Technology, Department of Energy, (Washington), 20 September 2007. Date of Access: 9 December 2007. http://www.energy.gov/news/5518.htm

[856] Factbox: Key Provisions of the Energy Bill Passed By The House, Reuters.com, 18 December 2007. Date of Access: 1 February 2008. http://www.reuters.com/article/politicsNews/idUSN18477169200712l8?pageNumber=1&virtualBrandChannel=0

[857] E.P.A. Denies California Emission's Waiver, NewYorkTimes.com, Micheline Maynard, 19 December 2007. Date of Access: 3 January 2008. http://www.nytimes.com/2007/12/19/washington/20epa-web.html?_r=2&bl&ex=1198213200&en=338c282b5b163a39&ei=5087%0A&oref=slogin&oref=slogin

[858] States Challenge Car Emissions Ruling, Reuters.com, John Crawley, 3 January 2008. Date of Access: 3 January 2008. http://www.reuters.com/article/environmentNews/idUSN02873092008010 3?pageNumber=1&virtualBrandChannel=0

[859] Start Small on Climate Change, LATimes.com, Kurt Christiansen, 9 June 2008. Date of Access: 9 June 2008. http://www.latimes.com/news/opinion/la-oew-christiansen9-2008jun09,0,2833251.story

[860] US Department of Energy and the Automotive X Prize Foundation to Promote Clean, Energy-Efficient Vehicles, Department of Energy, (Washington) http://www.energy.gov/news/6094.htm

[861] Mississippi State Universtiy Wins DOE and GM Challenge X 2008 Advanced Vehicle Competition, Department of Energy, (Washington), 21 May 2008. Date of Access: 4 June 2008. http://www.energy.gov/news/6269.htm

Analyst: John Donnelly

United States	Score
1D. Support for Climate Adaptation/Mitigation in DCs	**0**

Since June 2007, the U.S. has not taken many steps towards putting in practice the commitment of supporting climate change adaptation and mitigation in developing countries. The most important action towards the commitment was a funding announcement of $4.35 million to an initiative which includes measures to achieve adaptation in South East Asian countries. Washington also asserts that, because countries with better public services are better equipped to face the challenges related to climate change, aid on areas such as health and infrastructure is also significant in promoting adaptation. Nevertheless, most U.S. policies in this area predate the Heiligendamm Summit. As a result, the United States receives a score of 0, indicating that new action is needed to fully comply to this commitment.

As indicated above, greatest support for climate adaptation has been offered to South East Asian countries. In December, the American government announced its intention to "commit $4.35 million in support of the recently-announced Coral Triangle Initiative (CTI)", which affects "Indonesia (Central and Eastern), Timor-Leste, the Philippines, Malaysia (Sabah), Papua New Guinea, and the Solomon Islands". Among the activities the American government pledged to support was "achieving climate change adaptation measures"[862].

Official American budget in many cases blends resources aimed at tackling climate change in developing countries and those directed to the strengthening of their social, economic and environmental systems. In practice, it can be difficult to tell both groups apart. This illustrated by USAID Global Climate Change Funding included in the Federal Climate Change Expenditures Report to Congress by the Executive Office of the President. Programmes such as "Modern Energy Services", "Natural Resources and Biodiversity" and "Clean Productive Environment", receive support as well as "Anti-Corruption Reform" and "Program Support (Infrastructure)" measures[863].

In a similar vein, documentation available in the USAID website on "FY 2009 (…) Congressional Budget Justification" asserts that "[g]lobal Climate Change

[862] US Protects Biodiversity in Coral Triangle with $4.35 Million in Funding, Embassy of the United States in Jakarta, (Bahasa, Indonesia), 11 December 2007. Date of Access: 18 December 2007. http://jakarta.usembassy.gov/press_rel/ClimateChange/CoralReef.html

[863] Federal Climate Change Expenditures Report to Congress, Executive Office of the President, Office of Management and Budget, (Washington, D.C.), 3 May 2007. Despite the date of its publication, this document contains data relevant to the period being analysed. Date of Access: 18 December 2007.
http://www.whitehouse.gov/omb/legislative/fy08_climate_change.pdf

is a cross-cutting issue, but primarily falls under the Economic Growth Program Areas: "Infrastructure" and "Environment." It goes on to explain that "[g]lobal climate change-specific activities include: preparing greenhouse gas inventories and action plans; promoting achievement of the goals of the UN Framework Convention on Climate Change; reducing, measuring, monitoring, or reporting greenhouse gas emissions; and assessing or reducing vulnerability while increasing adaptation to the impacts of climate change[864].

The UNFCCC Bali meeting (COP 13/CMP3) was high on the international agenda in the second half of 2007. One of its important features was the agreement to launch a fund aimed at helping poor countries cope with the effects of climate change[865] [866] [867]. Immediately after the summit, the White House press secretary, Dana Perino, described "assisting countries in adapting to climate change" as one of the "positive" features of the consensus Decision of the Conference of the Parties in Bali"[868].

The governments represented in Bali invited the GEF, "an operating entity of the financial mechanism under the UNFCCC"[869], to provide secretariat services to the Adaptation Fund Board on an interim basis"[870]. The American FY 2008 budget, as reported to the Congress on May 2007, "requests $108.6 million for the first year of the fourth GEF replenishment based on the policy commitments anticipated thus far in the negotiations"[871]. As governments decided in Bali, the Adaptation Fund will "be financed with a share of proceeds from clean development mechanisms project activities and receive funds from other sources. (The share of proceeds "amounts to 2% of certified emission reductions issued for a CDM project activity)."[872]. This could partly exclude the U.S. because the CDM is a feature of the Kyoto Protocol, which the country has not ratified. However, in an interim phase, the governments invited "parties to finance the administrative expenses for operating the

[864] http://www.usaid.gov/policy/budget/cbj2009/. Date of Access: 21 June 2008.
[865] FACTBOX-Achievements at Bali climate talks, Reuters, 15 December 2007. Date of Access: 17 December 2007. http://www.reuters.com/article/latestCrisis/idUSSP186600.
[866] Climate Change: Forward, Hopefully, Past the Hurdles, IPS, (Bonn), 17 December 2007. Date of Access: 17 December 2007. http://www.ipsnews.net/news.asp?idnews=40492.
[867] Focus of Climate Talks Shifts to Helping Poor Countries Cope, The New York Times, (Nusa Dua), 13 December 2007. Date of Access: 17 December 2007.
http://www.nytimes.com/2007/12/13/world/13climate.html?partner=rssnyt&emc=rss
[868] Statement by the Press Secretary, The White House, 15 December 2007. Date of Access: 17 December, 2007. http://www.whitehouse.gov/news/releases/2007/12/20071215-1.html.
[869] U.S Actions to Address Energy Security, Clean Development, and Climate Change, U.S. Department of State, 18 December 2007 (Date of Access).
http://www.state.gov/g/oes/climate/c22820.htm
[870] Draft decision -/CMP.3: Adaptation Fund, The United Nations Framework Convention on Climate Change, 19 December 2008 (Date of Access).
http://unfccc.int/meetings/cop_13/items/4049.php
[871] Federal Climate Change Expenditures Report to Congress, Executive Office of the President, Office of Management and Budget, (Washington, D.C.), 3 May 2007. Date of Access: 18 December 2007.
http://www.whitehouse.gov/omb/legislative/fy08_climate_change.pdf
[872] Adaptation Fund , The United Nations Framework Convention on Climate Change, 12 December 2007. Date of Access: 19 December 2007.
http://unfccc.int/cooperation_and_support/financial_mechanism/items/3659.php

Adaptation Fund"[873]. Both American position towards a post-2012 treaty and possible financing in this phase, then, will need to be scrutinised in the future.

The East Asian announcement was the most important measure to directly comply with this commitment taken by the U.S. since the last G8 Summit. It could be argued, however, that other policies carried out by the USAID help countries to become more resilient by developing social nets and economic activities. Before this rather undefined panorama, the score for the U.S. in this period is 0.

Analyst: Eduardo Plastino

United States	**Score**
1E. Reducing GHG Emissions by Curbing Deforestation	**0**

The United States has moderately complied with the commitment to reduce GHG emissions by curbing deforestation. The commitment required the United States to continue to combat illegal logging and to introduce sustainable forest management. Importantly though, despite being hailed by House Speaker Nancy Pelosi as an "historic bill,"[874] the Energy Independence and Security Act contained little mention of combating illegal logging or sustainable forest management.[875] In 2007 forest fires in the U.S. were illustrative of the seriousness of the problem. The fires accounted for between 4 % and 6 % of North American greenhouse-gas emissions for the year as carbon dioxide was released back into the atmosphere as the trees burned.[876] While the United States has made some progress, it has failed to fully comply with the commitment it made at Heiligendamm. Therefore, the United States receives a 0.

On August 1 2007, the U.S. Senate passed the Combat Illegal Logging Act to outlaw the import, sale or trade in illegally-harvested wood and wood products in the United States.[877] A coalition of environment NGOs noted that the Act 'is a vital step in combating illegal logging by changing the incentives that drive trade in illegal timber. This Act will…be an important step toward levelling a playing field currently stacked against [companies] committed to

[873] Draft decision -/CMP.3: Adaptation Fund, The United Nations Framework Convention on Climate Change, 19 December 2008 (Date of Access). http://unfccc.int/meetings/cop_13/items/4049.php
[874] Energy Independence and Security Act, Speaker Nancy Pelosi, (Washington, DC), 10 January 2008 Date of access: 10 January 2008. http://www.speaker.gov/legislation?id=0131.
[875] Energy Independence and Security Act, (Washington, DC), 14 December 2007. Date of access: 14 December 2007. http://energy.senate.gov/public/_files/getdoc1.pdf
[876] Deforestation and Greenhouse-Gas Emissions, Council on Foreign Relations, Toni Johnson, (Washington, DC), 7 January 2008. Date of access: 7 January 2008. http://www.cfr.org/publication/14919/deforestation_and_greenhousegas_emissions.html
[877] S. 1930: Combat Illegal Logging Act of 2007, (Washington, DC), 1 August 2007. Date of access: 17 October 2007. http://www.govtrack.us/congress/billtext.xpd?bill=s110-1930.

trading in legal wood products. The Act will also bring the power of the U.S. market to bear on fighting the illegal timber trade.'[878]

The Environmental Investigation Agency (EIA) revealed the extent of the problem in a document entitled "No Questions Asked", published on 7 November 2007. The EIA estimated that approximately 10% of U.S. wood product annual imports, or $3.8 billion dollars, are derived from illegally logged timber.[879] The EIA's findings are supported by a climate report by the Sierra Club, who notes that 'a large amount of this illegally harvested timber is traded on the global marketplace and ends up in the U.S., Europe and Japan. Without this demand, much of the illegal logging would cease to be profitable. As one of the world's largest consumers of wood and wood products, the U.S. must be a leader in stopping this illegal trade.'[880]

In this regard, on 7 November 2007, The House Committee on Natural Resources passed the bipartisan Legal Timber Protection Act (LTPA), H.R. 1497. The LTPA's significance lies in giving the United States power of enforcement on the illegal logging trade, because it amends the Lacey Act and prohibits commerce in illegally-harvested wood and wood products.[881] The Act's importance is demonstrated by a further EIA report on 12 December 2007, which warned that Wal-Mart had a high risk of selling products made with illegal timber.[882]

On 22 May 2008, legislation to amend the Lacey Act was approved by the U.S. Congress. The legislation, introduced by Senator Ron Wyden (D-OR) and Congressman Earl Blumenauer (D-OR) was supported by a wide coalition of conservation, industry, and labour organisations. The Lacey Act was thus expanded from a wildlife trafficking statute, banning the commerce of illegally-sourced plants, including wood products.

Unfortunately, procedural problems with the bill's original passage meant that the law only received definitive approval with Congress's over-ride of Bush's Farm Bill veto on 18 June 2008. Nevertheless, Senator Wyden has commented that 'this legislation will go a long way towards not only leveling the playing field for American manufacturers, but to protecting jobs and

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[878] Lacey Support Letter, (Washington, DC), 27 July 2007. Date of access: 28 October 2007. http://www.afandpa.org/GTV/Lacey_support_letter_industry_coalition_27jul07_final.pdf.
[879] No Questions Asked: The Impacts of U.S. Market Demand for Illegal Timber - and the Potential for Change, Environmental Investigation Agency, (Washington, DC), 7 November 2007. Date of Access: 3 December 2007. http://www.eia-international.org/files/reports154-1.pdf, p.1.
[880] Trade and Global Warming: What Are the Connections?, Sierra Club, (Washington, DC), May 2008. Date of Access: 2 June 2008. http://www.sierraclub.org/trade/downloads/2008climatereport.pdf.
[881] U.S, Timber Law Clears First Hurdle, Environmental Investigation Agency, (Washington, DC), 7 November 2007, (Washington, DC). Date of access: 23 November 2007. http://www.eia-international.org/cgi/news/news.cgi?t=template&a=422&source=
[882] Attention Wal-Mart Shoppers: How Wal-Mart's Sourcing Practices Encourage Illegal Logging and Threaten Endangered Species, Environmental Investigation Agency, (Washington, DC), 12 December 2007. Date of access: 16 December 2007. http://www.eia-global.org/wallmart-report-v9.pdf.

addressing the illegal logging crisis.'[883] The amended Lacey Act makes the United States the first country in the world to forbid the import, sale or trade of illegally harvested wood and wood products. The bill also forces importers to declare the species and country of origin of any plant or plant product, thereby increasing transparency in global wood supply chains.[884]

Environmental and industry groups have applauded the passing of the Act. Alexander von Bismarck, Executive Director of the Environmental Investigation Agency, argued that 'the world's biggest consumer nation has sent a message that will be heard from forest to retail shelf: the United States' doors are now closed to products made from illegal wood.' Von Bismarck added that 'these provisions, in combination with stronger penalties for those who knowingly trade illegal goods, will change the equation to reward responsible practices and root out timber trade crime.'[885] Donna Harman, AF&PA President & CEO, emphasised that illegal logging costs the American forest products industry approximately $460 million annually in lost import sales. Therefore, 'this important illegal logging provision will level the playing field that is currently stacked against U.S. forest product manufacturers who are committed to trading in legal forest products.'[886]

The United States is also assisting programs aimed at preventing deforestation in developing countries. On 13 December 2007, the United States and China issued a joint Memorandum of Understanding (MOU) signed after the 3rd Strategic Economic Dialogue. The memorandum, announced within the Ten-Year Energy and Environment Cooperation Framework, encourages the sharing of information on timber shipments and increased law enforcement, as well as advocating private-sector partnerships to assist sustainable forest management. A more detailed bilateral agreement is to be formalised soon,[887] in the hope of reducing the high levels of illegally imported Chinese timber.

The United States' National Forest System is comprised of approximately 150 forests covering 192 million acres, yet action on sustainable forest management is less clear. On October 9 2007, the House of Representatives voted on H.R. 2185 to update the Tropical Forest Conservation Act (TFCA) of

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[883] Environmental Investigation Agency Applauds U.S. Congress for Passing World's First Ban on Import of Illegally Logged Wood, Reuters, (Washington, DC), 15 May 2008. Date of access: 18 May 2008. http://www.reuters.com/article/pressRelease/idUS254020+15-May-2008+PRN20080515.

[884] World's First Ban on Illegal Wood Imports Finalized Last Night, Environmental Investigation Agency, (Washington, DC), 19 June 2008. Date of access: 19 June 2008. http://www.earthtimes.org/articles/show/worlds-first-ban-on-illegal-wood-imports-finalized-last-night,440247.shtml.

[885] World's First Ban on Illegal Wood Imports Finalized Last Night, Environmental Investigation Agency, (Washington, DC), 19 June 2008. Date of access: 19 June 2008. http://www.earthtimes.org/articles/show/worlds-first-ban-on-illegal-wood-imports-finalized-last-night,440247.shtml.

[886] Environmental and Industry Groups Join to Commend New U.S. Ban on Illegal Wood Imports., (Washington, DC), 12 June 2008. Date of access: 13 June 2008. http://www.eia-global.org/PDF/PR--LaceyfinalIndustry--forests--jun08.pdf.

[887] China, U.S. sign first MOU addressing illegal logging, timber trade, Xinhua English Edition, (Beijing), 13 December 2007. Date of access: 16 December 2007. http://news.xinhuanet.com/english/2007-12/13/content_7243480.htm.

1998. However, the bill which has not yet passed through the Senate, would include congressional authorisation of only $20 million per year, the smallest amount since the TFCA came into being. Previous budgets had approached $100 million.[888] On November 28 2007, the United States and Indonesia concluded a memorandum on a debt-for-nature agreement under the TFCA that could wipe up to $20 million from Indonesia's debt to the United States. This agreement "will generate funds to conserve ecologically- and economically-important forests" in Indonesia.[889] That said, the United States chose not to contribute to the World Bank's Forest Carbon Partnership Facility (FCPT, finalised in Bali in December 2007) that aims to reduce emissions from deforestation and forest degradation.[890]

The December 2007 Energy Independence & Security Act contains little on sustainable forest management within the US. In fact, part of Act appears counter-productive in terms of forest management. The Act contains a historic 36 billion-gallon renewable fuels standard (RFS), of which a portion will be made from biomass. However, a change in the legislation's definition of renewable biomass, 'prevents almost all federal land biomass—such as trees, wood, brush, thinnings, chips and slash—from counting toward the mandate if it is used to manufacture biofuels.' According to U.S Senator John Thune, (R-SD), this re-definition changes the way that waste material from national forests can be used and is a waste of 'one of our greatest renewable resources.'[891]

Some positive news has been forthcoming. On 30 January, the Copper Salmon Wilderness Act, which designates 13,700 acres as the Copper Salmon Wilderness and would designate segments of the North and South Forks of the Elk River as Wild and Scenic Rivers was approved by the Senate Energy and Natural Resources Committeethe House Committee. On 2 April 2008, the House subcommittee on Natural Parks, Forests, and Public Lands also approved the Act.[892] On 10 April 2008 the U.S. Senate passed a bill creating the Wild Sky Wilderness in Washington state. The legislation, which subsequently passed through the House of Representatives on 29 April 2008, will preserve more than 106,000 acres of wilderness in Snohomish County in the front range of the Cascade Mountains, and was signed into law by

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[888] US Slashes Funding to Save Rainforest During UN Talks, Tropical Forest Group, (Santa Barbara), 6 December 2007. Date of access: 7 December 2007. http://www.tropicalforestgroup.org/news/6_dec_cop.html.

[889] The United States and Indonesia: Partners in Addressing Climate Change, Energy Security, and Clean Development, U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, (Washington, DC), 28 November 2007. Date of access: 29 November 2007. http://www.state.gov/g/oes/rls/fs/2007/96410.htm

[890] World Bank Fund Will Pay to Leave Forests Standing, Environment News Service, (Bali), 11 December 2007. Date of access: 14 December 2007. http://www.ens-newswire.com/ens/dec2007/2007-12-11-01.asp.

[891] National Forest Biomass Off-Limits for RFS, Hope Deutscher, (North Dakota), July 2008 issue. Date of access: 15 June 2008. http://ethanolproducer.com/article.jsp?article_id=4294.

[892] Wilderness Legislation in the 110th Congress, The Wilderness Society, (Washington, DC), 16 April 2008. Date of Access: 3 June 2008. http://www.wilderness.org/OurIssues/Wilderness/campaigns.cfm.

President Bush on 8 May 2008.[893] In total, the House has passed six wilderness bills that would protect more than 500,000 acres of forest land. The Senate Energy and Resources Committee has so far approved another four wilderness bills. Mike Matz, executive director of the advocacy group Campaign for America's Wilderness says that 'it may not seem like it on most issues, but in this one arena Congress is getting things across the goal line.'[894]

However, Bush Administration policies have constrained these successes, as simultaneously more than 40 million acres in the Rockies have been offered for oil and gas drilling and other extractions as well as 70 million acres in the Alaskan Arctic.[895] Thus, Katie McKalip, a spokeswoman for the advocacy group Theodore Roosevelt Conservation Partnership, has claimed that 'our public lands, and the fish and wildlife species that depend on them, are falling victim to a management policy that effectively values one land use -- oil and gas development -- above all others.'[896]

Since the 2007 Heiligendamm Summit, the United States has actively continued to improve its record in combating illegal logging. The Combat Illegal Logging Act, amendment to the Lacey Act and the Sino-American memorandum are all positive steps. The United States has not been quite so active on sustainable forest management. Indeed, the U.S. decision not to financially back the FCPT despite cautiously "welcome[ing]" its arrival seems strange. Moreover, bills to protect American wilderness areas are being counteracted by a continued focus on oil and gas drilling. For these reasons, progress on curbing deforestation can only be described as satisfactory (though improving), and thus the United States receives a score of 0 for compliance with this commitment.

Analyst: Andy Jones

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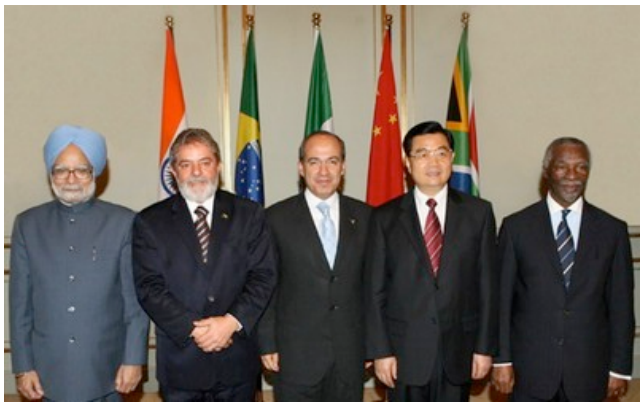
[893] President Signs Wild Sky into Law, Patty Murray, (Washington, DC), 8 May 2008. Date of access: 10 May 2008. http://murray.senate.gov/news.cfm?id=297489.
[894] Congress Pushes to Keep Land Untamed: Bills Could Add Millions of Acres of Wilderness, Juliet Eilperin, (Washington, DC), 16 June 2008. Date of access: 16 June 2008. http://www.washingtonpost.com/wp-dyn/content/article/2008/06/15/AR2008061502137.html?hpid=topnews%3Cbr%3E%3Cbr%3E.
[895] Congress Pushes to Keep Land Untamed: Bills Could Add Millions of Acres of Wilderness, Juliet Eilperin, (Washington, DC), 16 June 2008. Date of access: 16 June 2008. http://www.washingtonpost.com/wp-dyn/content/article/2008/06/15/AR2008061502137.html?hpid=topnews%3Cbr%3E%3Cbr%3E.
[896] Congress Pushes to Keep Land Untamed: Bills Could Add Millions of Acres of Wilderness, Juliet Eilperin, (Washington, DC), 16 June 2008. Date of access: 16 June 2008. http://www.washingtonpost.com/wp-dyn/content/article/2008/06/15/AR2008061502137.html?hpid=topnews%3Cbr%3E%3Cbr%3E.

The Outreach Five Countries



Leaders of Outreach Five countries, June 2007 (Source: Xinhua)

From left to right:
Prime Minister Dr. Manmohan Singh, President Luiz Inacio Lula da Silva, President Felipe Calderon, Prime Minister President Hu Jintao and President Thabo Mbeki

Brazil

Background

Prior to this compliance cycle, Brazil demonstrated its commitment to international climate negotiations by hosting the 1992 United Nations meeting at which the UNFCCC was launched, and by actively participating in the talks that resulted in the adoption of the text of the Kyoto Protocol. The negotiating position that Brazil has consistently adopted during international climate change talks has been informed by its developing country status. The country has systematically defended the principle the "shared but differentiated responsibilities" enshrined in the United Nations Framework Convention on Climate Change (UNFCCC) and hence has traditionally been opposed to any measure that may constrain domestic economic development, such as emission caps.[897]

Brazil has taken some action to meet its first commitment to contribute to the stabilisation of GHG concentrations. It established a committee to coordinate national climate policy led by the President that is expected to present a national strategic plan on 21 September 2008[898].

The government also announced the creation of the Fund for the Protection and Conservation of the Brazilian Amazon Forest ("Fundo de Proteção e Conservação da Amazônia Brasileira"), a potentially significant initiative given that an estimated 75 % of the country's global GHG emissions result from deforestation.[899] An inter-ministerial working group was set up for the presentation of proposals regarding the practical aspects of the creation of such Fund[900].

Meanwhile, at the United Nations Climate Change Conference in Bali, Brazil refused to be subjected to mandatory emission caps, but agreed to take "quantifiable and verifiable measures" to reduce its emissions, in particular those that are the result of the deforestation of the Amazon.[901]

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[897] ONGs criticam plano brasileiro contra desmatamento, BBC Brasil, (London), 16 November 2006. Date of Access: 12 January 2008.
http://www.bbc.co.uk/portuguese/reporterbbc/story/2006/11/061115_marinasilvaanalise_pu.shtml

[898] Plano Nacional de Mudanças Climáticas será apresentado em setembro, Agência Brasil, (Brasilia), 13 June 2008. Date of Access: 29 June 2008.
http://www.agenciabrasil.gov.br/noticias/2008/06/13/materia.2008-06-13.5740483232/view

[899] ONGs cobram do Brasil metas claras para emissões, Folha Online, (Sao Paulo), 4 December 2007. Date of Access: 5 January 2008.
http://www1.folha.uol.com.br/folha/bbc/ult272u351146.shtml

[900] Presidência da República, Casa Civil, Subechefia para Assuntos Jurídicos, Decree of 5 June 2008, (Brasilia). Date of Access: 28 June 2008.
https://legislacao.planalto.gov.br/LEGISLA/Legislacao.nsf/0/F2BD93319E321A288325747600470F2C?OpenDocument&seq=1

[901] Brasil diz que vai adotar "medidas verificáveis" para reduzir emissões, Folha Online, (Sao Paulo), 10 December 2007. Date of Access: 04 January 2007.
http://www1.folha.uol.com.br/folha/ambiente/ult10007u353317.shtml

With regards to its second commitment, Brazil has made considerable progress since Heiligendamm in the field of biofuels (biodiesel and ethanol) by introducing a mandatory share of 2 % of biodiesel to be mixed in all diesel sold in the country and continues to be among the top three countries hosting CDM projects. On the downside, however, the Brazilian government has not taken action to promote other alternative renewable sources of energy, such as wind and solar energy. Moreover, it is unclear at present if the expansion of the area for cane sugar and soy cultures for the production of ethanol and biodiesel respectively is not, as a consequence, accelerating the destruction of the Amazon Forrest and increase in the country's GHG emissions.[902]

Brazil specified a national target for increasing the efficiency of certain economic sectors, and has taken significant steps to strengthen existing policies and programmes that promote more efficient energy use. However, new policies and programmes and capital inflows are needed to promote alternative energy projects. Overall, the country has demonstrated only limited compliance with the three Heiligendamm Summit environmental commitments under analysis.

Team Leader and Analyst: Roberto Hanania

Brazil	**Score**
2A. Stabilise GHG Concentrations	**0**

Deforestation is the cause of 75.4 % of the country's total GHG emissions.[903] In view of the low contribution of other emission sources (according to the country's initial communication under the UNFCCC, the energy sector contributes with 23 % and the industry 1.6% of total GHG emissions), Brazil's major challenge in complying with its commitment to contribute to the stabilisation of GHG concentrations is to reduce GHG emissions related to land use, land use change, and forestry.

In order to address this issue, the Ministry of Environment decided in December 2007 to create the Secretariat of Climate Change and Environmental Quality ("Secretaria de Mudanças Climáticas e Qualidade Ambiental"). Its mandate is to coordinate the creation of a National Plan to

[902] Biofuels may be "dirty", Folha Online, (Sao Paulo), 7 January 2007. Date of Access: 1 February 2008. http://www1.folha.uol.com.br/folha/ambiente/ult10007u360786.shtml
[903] Inventário de Emissões e Remoções Antrópicas de Gases de Efeito Estufa não Controlados pelo Protocolo de Montreal, Ministério da Ciência e Tecnologia, (Brasilia), 2004, pp. 85, 86. Date of Access: 08 January 2007. http://www.mct.gov.br/upd_blob/0004/4199.pdf
Also in: Contribuição do Brasil para evitar a mudanca de clima, Ministério da Ciência e Tecnologia, (Brasilia), September 2007, p. 36. Date of Access: 22 December 2007. http://www.mct.gov.br/upd_blob/0018/18290.pdf

Combat Climate Change, which is expected to be presented on 21 September 2008[904].

Another challenge for the current government is to prevent the use of public funds to promote the illegal deforestation of the Amazon Forrest. Even though legislation that requires financial institutions to deny public loans to projects that have not obtained the necessary environmental authorization has existed since 1981[905] when the "National Policy for the Environment" was adopted, it has not been consistently applied.

This problem was addressed with the adoption in February 2008 of Resolution No. 003545 by the Central Bank of Brazil,[906] which conditions the granting of public loans by banks to the possession of all relevant environmental authorizations. This significant achievement was made while the Minister of Environment Marina Silva was in office. However, the replacement of Minister Silva by Carlos Minc on 13 May has caused some members of the Brazilian press and conservational international organizations to infer that the government may be weakening its interpretation of Resolution No. 003545[907], since Minister Minc announced at the First Forum of Governors of the Legal Amazon ("Fórum de Governadores da Amazônia Legal"), held on 30 May 2008, that an area corresponding to 155,000 km2 in the boundaries of the Amazon forest was to be excluded from the reach the law.[908]

In positive developments, Minister Minc has announced that the government will seek agreements with meatpackers to ban the sale of beef from cattle raised in Amazon preservation areas.[909] This measure has been widely praised by conservational organizations such as the Greenpeace.[910]

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[904] Plano Nacional de Mudanças Climáticas será apresentado em setembro, Agência Brasil, (Brasilia), 13 June 2008. Date of Access: 29 June 2008. http://www.agenciabrasil.gov.br/noticias/2008/06/13/materia.2008-06-13.5740483232/view

[905] Article 12 of Law No. 6.938, of 31 August 1981, Presidencia da Republica, (Brasilia). Date of Aceess: 15 June 2008. http://www.planalto.gov.br/ccivil_03/LEIS/L6938.htm

[906] Resolução No. 3545, of 29 February of 2008 of the Central Bank of Brazil, Banco Central do Brasil, (Brasilia). Date of Access: 17 June2008. https://www3.bcb.gov.br/normativo/detalharNormativo.do?N=108019002&method=detalharNormativo

[907] Worsening Amazon deforestation embarrasses Brazil's government, AFP, (Rio de Janeiro), 3 June 2008. Date of Access: 15 June 2008. http://afp.google.com/article/ALeqM5i3amXGwXSFd3n2DiXVX62yZa0MRw. Greenpeace: Brasil concorre a 'motosserra de ouro', O Globo, (Bonn), 28 May 2008. Date of Access: 15 June 2008.

[908] Minc nega que governo tenha afrouxado regra de "crédito verde" na Amazônia, Folha Online, (Brasília), 30 May 2008. Date of Access: 16 June 2008. http://www1.folha.uol.com.br/folha/brasil/ult96u407184.shtml

[909] Brazilian Soybean Traders Renew Ban on Amazon Crops (Update1), Bloomberg, (Brasilia), 17 June 2008. Date of Access: 18 June 2008. http://www.bloomberg.com/apps/news?pid=20601086&sid=acT5Dn6MzkeU&refer=latin_america

[910] Landmark Amazon soya moratorium extended, Greenpeace. Date of Access: 18 June 2008. http://www.greenpeace.org/international/news/amazon-soya-moratorium-renewed-170608

Another positive development was the announcement of a Fund for the Protection and Conservation of the Brazilian Amazon Forest ("Fundo de Proteção e Conservação da Amazônia Brasileira"). The Fund is expected to be supported with one billion Reais of voluntary contributions from governments, companies, and individuals. The money will be invested in projects aimed at the reduction of deforestation of the Amazon. Every US$5 donated will represent a reduction of one tonne of CO_2 emissions. The fund is intended to be a source of financing for projects aimed at the conservation of the forest.

According to a recent declaration by the Ministry of Environment, the first US$100 million donation to the fund has already been pledged by the Norwegian government.[911] An inter-ministerial working group was set up on 5 June 2008 for the presentation of proposals regarding the practical aspects of the creation of such Fund[912].

In terms of international declarations, the government committed itself at Bali to adopt "quantifiable and verifiable measures" to reduce its GHG emissions, especially those related to the deforestation of the Amazon.[913]

In spite of some positive signs, approval of new legislation and international declarations by Brazil regarding the reduction of its most important source of GHG emissions, the Ministry of Environment, Greenpeace, and WWF have already signaled that new satellite data indicates that deforestation in 2008 will be greater than in 2007.[914]

In conclusion, Brazil has only partially achieved its commitment to limit anthropogenic emissions from its main source of GHGs and protect and enhance its GHG sinks and reservoirs. Therefore, it is found only to be in partial compliance with this commitment.

Analyst: Lorena Fonseca Mariz de Medeiros and Roberto Hanania

Addendum:

- On 5 June 2008, Brazilian President Luiz Inacio Lula da Silva unveiled plans to create three protected reserves covering an area the size of the US state of Vermont. The new reserves in Para and Amazonas state

[911] Minc anuncia liberação de R$ 1 bilhão para recuperar floresta degradada, G1, (São Paulo), 30 May 2008. Date of Access: 18 June 2008.
[912] Presidência da República, Casa Civil, Subechefia para Assuntos Jurídicos, Decree of 5 June 2008, (Brasilia). Date of Access: 28 June 2008.
https://legislacao.planalto.gov.br/LEGISLA/Legislacao.nsf/0/F2BD93319E321A288325747600470F2C?OpenDocument&seq=1
[913] Brasil diz que vai adotar "medidas verificáveis" para reduzir emissões, Folha Online, (Sao Paulo), 10 December 2007. Date of Access: 04 January 2007.
http://www1.folha.uol.com.br/folha/ambiente/ult10007u353317.shtml
[914] Worsening Amazon deforestation embarrasses Brazil's government, AFP, (Rio de Janeiro), 3 June 2008. Date of Access: 29 June 2008.
http://afp.google.com/article/ALeqM5i3amXGwXSFd3n2DiXVX62yZa0MRw

would expand the current protected 23 million hectares (89,000 sq miles) by 2.6 million hectares (10,000 sq miles). Yet, the proposal has to be approved by Congress and could face challenges in the Supreme Court.[915]

- On 2 July 2008, Brazil's new Environment Minister, Carlos Minc, reached an agreement with the grain processing industry to ban purchases of soy from deforested Amazon until July 2009, winning praise from environmentalists. Minc added that the same initiative will be extended to the timber and beef sectors.[916] Turning plans into action, Brazil seized thousands of head of cattle in the Amazon as part of a crackdown on illegal farming and logging, which fuels destruction of the world's largest rain forest, the environment minister said on 24 June 2008.[917]

Brazil	**Score**
2B. Promote Less Emission-Intensive Energy Production	**0**

Brazil is a significant producer of both fossil-fuel based and renewable energy. In terms of the latter, it has become a pioneering country in producing and consuming biofuels, and since the Heiligendamm Summit in June 2007 has taken several initiatives to expand production from its hydroelectrical sources.

As of January 2008, all diesel sold in Brazil will have to be mixed with 2% of biodiesel.[918] The biodiesel market demand for the first six months of 2008 (approximately 380 million liters) was already contracted through public auctions held in November 2007.

As from July 2008, this percentage was increased to 3 % of the total volume and the public auction for the provision of the 330 million litters of biodiesel needed for the compliance with the law was held in April 2008.[919]

However, the intensive use of biodiesel and ethanol by the country has not been without criticism. Conservation groups such as the WWF claim that the

[915] Brazil's Lula Announces New Amazon Protection, Reuters, (Brasilia), 6 June 2008. Date of Access: 2 July 2008.
http://www.planetark.com/dailynewsstory.cfm?newsid=48657&newsdate=06-Jun-2008.
[916] Brazil Throws Weight Behind Amazon Soy Ban, Reuters, (Brasilia), 19 June 2008. Date of Access: 2 July 2008.
http://www.planetark.com/dailynewsstory.cfm?newsid=48876&newsdate=19-Jun-2008.
[917] Brazil Seizes Cattle to Stem Amazon Destruction, Reuters, (Brasilia), 26 June 2008. Date of Access: 2 July 2008.
http://www.planetark.com/dailynewsstory.cfm?newsid=49002&newsdate=26-Jun-2008.
[918] Gas stations will have to sell diesel mixed with 2% of biodiesel as from January, Folha Online, (São Paulo), 28 December 2007. Date of Access: 1 February 2008.
http://www1.folha.uol.com.br/folha/dinheiro/ult91u358800.shtml
[919] ANP encerra leilão de biodiesel e garante oferta para o 30 tri, Reuters, Brasil Online, (Rio de Janeiro), 11 April 2007. Date of Access: 29 June 2008.
http://oglobo.globo.com/economia/mat/2008/04/11/anp_encerra_leilao_de_biodiesel_garante_oferta_para_30_tri-426800507.asp

growing production of sugar cane, the raw material for ethanol, has exacerbated deforestation in the country.[920]

The link between the production of biodiesel and deforestation is even more worrying in view of the lack of an official control by the country of the raw materials used to produce this fuel.[921]

With regards to CDM projects aimed at developing cleaner energy production, Brazil has improved access to advanced and affordable technologies by facilitating inward capital investment towards new energy technology projects, providing a positive investment environment**,** supporting CDM projects and the carbon market, encouraging technology transfer, and financing research and development[922].

The Brazilian National Development Bank (BNDES) is a major promoter of regional infrastructure development in the country. On 19 September 2007, BNDES approved more than R$3.5 billion for hydroelectric power plant projects in the country[923] and R$549.3 million for the electric sector,[924] and also financed infrastructure projects in hydroelectric power plants.[925] This funding is intended to ensure secure and affordable supplies of energy, as hydroelectric power plants are expected to generate clean and renewable energy.[926] BNDES also financed infrastructure projects to secure supplies of

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[920] Activists say Brazil must improve G8 climate proposal, Reuters, (Brasilia), 5 June 2007. Date of Access: 9 January 2007. http://uk.reuters.com/article/topNews/idUKN0526791520070605

[921] Governo não sabe do que é feito biodiesel no Brasil, Terra Invertia, (Brasilia), 3 May 2008. Date of Access: 29 June 2008. http://br.invertia.com/noticias/noticia.aspx?idNoticia=200805031200_RED_76912621

[922] Sistema financeiro alinha propostas ao desenvolvimento sustentável, Instituto para o Desenvolvimento do Investimento Social – IDIS, (Sao Paulo), 2 June 2008. Date of Access: 29 June 2008. http://www.idis.org.br/acontece/noticias/sistema-financeiro-alinha-acoes-ao-desenvolvimento-sustentavel/view

[923] BNDES approves R$ 1 billion for Furnas to build hydroelectric power plant in Simplício, Ministry of Development, Industry and Foreign Trade, National Development Bank (BNDES), 14 November 2007. Date of Access: 1 January 2008. http://www.bndes.gov.br/noticias/2007/not264_07.asp; BNDES approves R$ 2.6 billion for hydroelectric power plant in Estreito, Ministry of Development, Industry, and Foreign Trade, National Development Bank (BNDES), 20 December 2007. Date of Access: 2 January 2008. http://www.bndes.gov.br/noticias/2007/not284_07.asp; BNDES approves R$ 170 million for hydroelectric power plant in Monjolinho (RS), 13 November 2007. Date of Access: 2 January 2008. http://www.bndes.gov.br/noticias/2007/not263_07.asp.

[924] BNDES approves R$ 549.3 million for Light Group, Ministry of Development, Industry, and Foreign Trade, National Development Bank (BNDES), 16 October 2007. Date of Access: 2 January 2008. http://www.bndes.gov.br/noticias/2007/not236_07.asp.

[925] BNDES approves infrastructure projects for Eletrosul RS, Ministry of Mines and Energy, Eletrobrás, 3 October 2007. Date of Access: 3 January 2008. http://www.eletrobras.gov.br/elb/portal/main.asp?View=%7BEB7EA1A1%2D360E%2D40FA%2D9360%2D742E53C8C220%7D&Team=&params=itemID=%7B7226A2BC%2DE21C%2D4EC0%2DAE07%2D9235958EE414%7D%3B&UIPartUID=%7B9E178D3B%2D9E55%2D414B%2DA540%2DEB790C1DF788%7D

[926] BNDES approves R$ 1 billion for Furnas to build hydroelectric power plant in Simplício, Ministry of Development, Industry and Foreign Trade, National Development Bank (BNDES), 14 November 2007. Date of Access: 1 January 2008. http://www.bndes.gov.br/noticias/2007/not264_07.asp; BNDES approves R$ 2.6 billion for hydroelectric power plant in Estreito, Ministry of Development, Industry, and Foreign Trade,

electric energy,[927] and announced that R$200 million would be used to fund CDM projects in several areas, such as sanitary landfills, hydroelectric power plants, biomass, co-generations, energy efficiency, and alternative transportation.[928]

The widespread use of biodiesel and ethanol by Brazil constitute an important and positive element in the country's fight to curb GHG emissions. It remains to be seen whether the growing production of sugar cane, the raw material for ethanol, has exacerbated deforestation. However, the lack of federal investment or incentives for the exploitation of other renewable, clean sources of energy, such as wind and solar energy, and the current trend of using fossil and non-fossil fuels to diversify the country's power generation sources, demonstrates a lack of governmental commitment to promoting these energy alternatives. As a result, Brazil is only found to be in partial compliance with this commitment.

Analysts: Roberto Hanania and Christine Toczeck

Brazil	**Score**
2C. Promote Less Emission-Intensive Energy Consumption	**0**

Brazil registered some level of compliance with its commitment to promote less emission-intensive energy consumption by fostering international cooperation in the energy sector. In addition, the government also implemented several initiatives that contribute to improving energy efficiency, and promoted access to advanced and affordable energy technologies.

During the compliance period, Brazil took substantial policy decisions that contributed to improving energy efficiency and access to energy technologies through international cooperation. On 5 July 2007, Brazilian and European authorities signed the terms of reference for the EC-Brazil Regular Energy Policy Dialogue aimed to facilitate the exchange of views on all aspects related to energy security and sustainability, to develop bilateral cooperation in areas of common interest, most notably in biofuels, renewable energy sources, and low carbon energy technologies, and to improve energy efficiency.[929]

National Development Bank (BNDES), 20 December 2007. Date of Access: 2 January 2008. http://www.bndes.gov.br/noticias/2007/not284_07.asp; BNDES approves R$ 170 million for hydroelectric power plant in Monjolinho (RS), 13 November 2007. Date of Access: 2 January 2008. http://www.bndes.gov.br/noticias/2007/not263_07.asp

[927] BNDES approves R$ 549.3 million for Light Group, Ministry of Development, Industry, and Foreign Trade, National Development Bank (BNDES), 16 October 2007. Date of Access: 2 January 2008. http://www.bndes.gov.br/noticias/2007/not236_07.asp

[928] BNDES plans to grant funds to clean development this year, Agency Brazil, (Rio de Janeiro), 19 September 2007. Date of Access: 1 January 2007. http://www.agenciabrasil.gov.br/noticias/2007/09/19/materia.2007-09-19.9934443637/view.

[929]The European Union deepens energy relations with Brazil, European Union Press Release, (Brussels), 5 July 2007. Date of Access: 14 December 2007. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1025&format=HTML&aged=0&language=EN&guiLanguage=en.

Moreover, the Brazilian government has signed bilateral cooperation agreements to develop biofuels,[930] and discuss energy efficiency and savings.[931]

Brazil also reinforced its cooperation in the energy field with international organizations. The Brazilian Ministry of Mines and Energy, in partnership with the International Energy Agency (IEA), held a workshop on 19-20 November 2007 to increase awareness of existing research, development, and deployment networks, and to facilitate broader participation where appropriate.[932]

On 22 November 2007, Brazil discussed the creation of the Latin American Forum on Energy Efficiency with other Latin American countries. Government authorities focused on strategies to foster energy efficiency in the region, and other issues relating to energy policy.[933] On 30 December 2007, Brazilian and Latin American authorities signed the Medellín Declaration to strengthen efforts that promote regional energy integration to mitigate global warming, and ensuring supplies of energy, energy efficiency, and the protection of the environment.[934]

Domestically, Brazil introduced a number of policy measures to lessen the carbon intensity of consumption, mainly with the products and services available in domestic markets. Brazil's domestic initiatives to foster energy efficiency include awarding energy-efficiency certificates to household appliance manufacturers that demonstrate higher levels of energy efficiency; and a National Award for the Conservation and Efficient Use of Energy[935]

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[930] Brazil and Netherlands sign cooperation agreement in biofuels, Agency Brazil (Haya), 10 April 2008. Date of Access: 9 June 2008. http://www.agenciabrasil.gov.br/noticias/2008/04/10/materia.2008-04-10.4135031202/view. Brazil and Peru to sign ten cooperation agreements, Agency Brazil (Lima), 17 maio 2008. Date of access: 5 June 2008. http://www.agenciabrasil.gov.br/noticias/2008/05/16/materia.2008-05-16.0124228611/view

[931] Brazil and Spain discuss energy efficiency, Estadão, (Brasilia), 30 October 2007. Date of Access: 30 December 2007. http://www.estadao.com.br/economia/not_eco73043,0.htm

[932] Stronger IEA links with Brazil, China, India, International Energy Agency, (Brasilia), 17 December 2007. Date of Access: 26 December 2007. http://www.iea.org/impagr/cip/index.htm.

[933] Seminar discusses the creation of the Latin American Forum on Energy Efficiency, Ministry of Mines and Energy, Eletrobrás, 22 November 2007. Date of Access: 1 January 2008. http://www.eletrobras.gov.br/elb/portal/main.asp?View=%7BEB7EA1A1%2D360E%2D40FA%2D9360%2D742E53C8C220%7D&Team=&params=itemID=%7B60CF1602%2DDC81%2D448F%2DAE69%2DDDCFFE51564C%7D%3B&UIPartUID=%7B9E178D3B%2D9E55%2D414B%2DA540%2DEB790C1DF788%7D

[934] Ministerial authorities in the energy field of 21 Latin American and Caribbean countries signed the Medellín Declaration, Latin American Energy Organization, News, 30 December 2007. Date of Access: 1 January 2008. http://www.olade.org.ec/noticia8.html

[935] PROCEL Award will be granted today at the Marina da Glória, Ministry of Mines and Energy, Eletrobrás, 11 December 2007. Date of Access: 2 January 2008. http://www.eletrobras.com/elb/portal/main.asp?View=%7BEB7EA1A1%2D360E%2D40FA%2D9360%2D742E53C8C220%7D&Team=&params=itemID=%7B9CB89171%2D3F80%2D4453%2DBE4F%2D52A4C4DDBD0B%7D%3B&UIPartUID=%7B9E178D3B%2D9E55%2D414B%2DA540%2DEB790C1DF788%7D

given within certain categories,[936] such as media, industry, public institutions, enterprises, transport, and energy and building sector companies.[937]

The Brazilian government has been working on regulations to standardize the evaluation and performance of urban lighting and household appliances. Currently, urban lighting is responsible for 3-5% of the energy consumption in the country. On 20 July 2007, PROCEL, an energy efficiency programme designed to reduce energy consumption, announced that it would fund urban lighting projects to replace mercury vapor lamps with sodium vapor lamps, which are significantly more energy efficient.[938] In addition, Brazil introduced regulations to establish maximum levels of energy consumption for household appliances and air conditioning.[939] Through energy conservation programmes and labeling policies, Brazil also informs consumers about the energy efficiency of certain products sold in the country.[940]

Other government programmes have also supported energy efficiency, particularly in the industrial and building sectors. The Brazilian government, through Eletrobrás/PROCEL, signed agreements with the industrial sector, and universities aimed to reduce energy waste during industrial processes, to promote research, and to grant scholarships for research and development in the context of industrial energy efficiency and conservation.[941] In the building

[936] National Award for the Conservation and Efficient Use of Energy, PROCEL, Eletrobrás, Ministry of Mines and Energy, 2007. Date of Access: 27 December 2007. http://www.eletrobras.com/elb/procel/main.asp?TeamID={811C478E-12F3-4D55-95D2-415B9273FD83}

[937] Energy efficiency award is granted to companies, Radiobrás, Agency Brazil, 11 December 2007. Date of Access: 30 December 2007. http://www.agenciabrasil.gov.br/noticias/2007/12/11/materia.2007-12-11.6804253244/view

[938] RELUZ brings efficient urban lighting to Aparecida (SP), Ministry of Mines and Energy, Eletrobrás, 20 July 2007. Date of Access: 30 December 2007. http://www.eletrobras.gov.br/elb/portal/main.asp?View=%7BEB7EA1A1%2D360E%2D40FA%2D9360%2D742E53C8C220%7D&Team=&params=itemID=%7BBA34223D%2D64D2%2D4D60%2D9BAE%2D01DDEB8AD183%7D%3B&UIPartUID=%7B9E178D3B%2D9E55%2D414B%2DA540%2DEB790C1DF788%7D.

[939] Ministry of Mines and Energy regulates energy efficiency index of refrigerators, ovens and stoves, Ministry of Mines and Energy, 4 January 2008. Date of Access: 3 June 2008. http://www.mme.gov.br/site/news/detail.do?newsId=14764&currentArea=

[940] CONPET: National Program for the rationalization of the use of oil and natural gas derivatives, 3 January 2007. Date of Access: 3 January 2007. http://www.conpet.gov.br/eng/proj_pbe.php#; Inmetro will classify consumption capacity of appliances, Eletrobrás, PROCEL, 1 January 2008. Date of Access: 1 January 2008. http://www.eletrobras.com/elb/procel/main.asp?View=%7BEA5783EB%2D3CC4%2D4255%2D995E%2D98B9D1391764%7D&Team=&params=itemID=%7BE1FFED4A%2D31BE%2D4EB0%2DA490%2DE436CE779106%7D%3B&UIPartUID=%7BD90F22DB%2D05D4%2D4644%2DA8F2%2DFAD4803C8898%7D

[941] Learn more about PROCEL actions in the industry sector, Eletrobrás, PROCEL, 20 December 2007. Date of Access: 1 January 2008. http://www.eletrobras.com/elb/procel/main.asp?View=%7BEA5783EB%2D3CC4%2D4255%2D995E%2D98B9D1391764%7D&Team=&params=itemID=%7B2EEACAE5%2D9E29%2D44BB%2DB8D6%2D2F5F86B87612%7D%3B&UIPartUID=%7BD90F22DB%2D05D4%2D4644%2DA8F2%2DFAD4803C8898%7D; Eletrobrás releases funds for universities of PB, Eletrobrás, PROCEL, 1 January 2008. Date of Access: 1 January 2008. http://www.eletrobras.com/elb/procel/main.asp?View=%7BEA5783EB%2D3CC4%2D4255%2D995E%2D98B9D1391764%7D&Team=&params=itemID=%7B6A1C4BA3%2D0960%2D4920%2D9460%2D523A9BE04F8D%7D%3B&UIPartUID=%7BD90F22DB%2D05D4%2D4644%2DA8F2%2DFAD4803C8898%7D; Ministry of Education signed agreement with

sector, Eletrobrás launched the Energy Efficiency Network, which aims to collaborate in the development of laboratories, promote an exchange of scientific production and education among academic institutions, foster the development of new technologies in building projects, and encourage partnerships in educational activities and research among its participants.[942] Brazil also financed research and development projects to improve access to new technologies by establishing laboratories to promote capacity building in energy efficiency, developing projects in the building sector aimed at energy consumption, and minimizing the sector's environmental impact.[943]

Brazil also made progress in reducing the carbon-intensity of domestic transport by implementing the biodiesel mixture. Since 1 January 2008, diesel commercialized in Brazil must contain a minimum of 2% of biodiesel.[944] However, no priority or substantial measures were taken at broader national level to enhance the fuel efficiency of cars and motorcycles or to encourage taxes on carbon-intensive energy consumption.

On 2 April 2008, Bill 3.166/2008 created the National Programme for Solar Panels Installation. The Bill establishes conditions to finance the installation of solar panels in residential and commercial properties. Additionally, Bill 3.173/2008 introduces mandatory solar heating systems requirements for those residential and non-residential buildings that are financed by the Brazilian National Housing Programme and Growth Acceleration Programme. The Bill also applies to government properties, hospitals, universities, schools, and military properties.[945] Despite the fact that the use of renewable energy sources has risen by 46.4%in 2007,[946] no significant measures were taken to

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Eletrobrás/PROCEL, Eletrobrás, PROCEL, 13 December 2007. Date of Access: 1 January 2008.
http://www.eletrobras.com/elb/procel/main.asp?View=%7BEA5783EB%2D3CC4%2D4255%2D995E%2D98B9D1391764%7D&Team=&params=itemID=%7B440957BE%2D22E2%2D4B85%2DBDE9%2D20AF7412B7D5%7D%3B&UIPartUID=%7BD90F22DB%2D05D4%2D4644%2DA8F2%2DFAD4803C8898%7D

[942] Eletrobrás launches the Energy Efficiency Network in the building sector, Ministry of Mines and Energy, Eletrobrás, 9 October 2007. Date of Access: 30 December 2007.
http://www.eletrobras.gov.br/elb/portal/main.asp?View=%7BEB7EA1A1%2D360E%2D40FA%2D9360%2D742E53C8C220%7D&Team=&params=itemID=%7BEBCC062F%2DC651%2D44C2%2D9D5D%2D1420E170306A%7D%3B&UIPartUID=%7B9E178D3B%2D9E55%2D414B%2DA540%2DEB790C1DF788%7D.

[943] PTI opens PROCEL Energy Efficiency Laboratory, Eletrobrás, PROCEL, 30 November 2007. Date of Access: 1 January 2008.
http://www.eletrobras.com/elb/procel/main.asp?View=%7BEA5783EB%2D3CC4%2D4255%2D995E%2D98B9D1391764%7D&Team=&params=itemID=%7BD365A930%2D889E%2D41A7%2D865D%2DECF5AB19C87D%7D%3B&UIPartUID=%7BD90F22DB%2D05D4%2D4644%2DA8F2%2DFAD4803C8898%7D

[944] Mandatory biodiesel mixture is in force, Ministry of Mines and Energy, 2 January 2008. Date of Access: 3 January 2008. http://www.mme.gov.br/site/news/detail.do?newsId=14730

[945]Energy efficiency in the legislative agenda, Ministry of Mines and Energy, 24 April 2008. Date of Access: 9 June 2008.
http://www.eletrobras.com/pci/main.asp?View=%7B8D1AC2E8%2DF790%2D4B7E%2D8DDD%2DCAF4CDD2BC34%7D&Team=&params=itemID=%7B840AC44F%2D399D%2D46D5%2D906E%2D7C980CDBFC5C%7D%3BLumisAdmin=1%3B&UIPartUID=%7BD90F22DB%2D05D4%2D4644%2DA8F2%2DFAD4803C8898%7D

[946] Use of renewable energy sources have raised in the country, Agency Brazil (Rio de Janeiro), 8 May 2008. Date of Access: 8 June 2008.

ensure that fiscal incentives and appropriate financing are granted to promote wind and solar energy projects, which are still very costly.

Brazil adopted measures to increase public awareness of carbon emissions associated with products and services and the carbon market itself. On 18 July 2007, Brazilian authorities and industry representatives signed the Clean Development Mechanism (CDM) protocol aimed at improving public awareness of the importance of the CDM and the carbon market in mitigating global warming.[947] On 17 July 2007, the Brazilian Ministry of Development, Industry, and Foreign Commerce launched the Protocol of Intentions for "The Year of the Clean Development Mechanism". [948] The Protocol seeks to encourage Brazilian citizens to contribute to the reduction of greenhouse gas emissions in the atmosphere, emphasizing a clean development and decreased carbon emissions.[949]

Additionally, in terms of public participation, Brazil carried out public consultations related to regulations for the minimum levels of energy efficiency for water and gas heaters to be commercialized in Brazil, and Energy Efficiency Voluntary Labeling for Commercial, Services, and Public Buildings.[950] Among other energy efficiency initiatives, Eletrobrás also managed educational programmes to help school directors, teachers, and students and their families to deal with environmental conservation and energy efficiency.[951]

Brazil specified a national target for increasing the efficiency of certain economic sectors, and has taken significant steps to strengthen existing policies and programmes that promote more efficient energy use; nevertheless, new policies, programmes, and funding are needed to promote alternative energy projects. Therefore Brazil is found to be in partial compliance with this commitment.

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http://www.agenciabrasil.gov.br/noticias/2008/05/08/materia.2008-05-08.9180976967/view

[947] Industry and government signed protocol of intentions on the clean development mechanism, Agency Brazil, (Brasília), 18 July 2007. Date of Access: 1 January 2008. http://www.agenciabrasil.gov.br/noticias/2007/07/18/materia.2007-07-18.1944245567/view.

[948] Miguel Jorge launches the Year of the Clean Development, Brazilian Ministry of Development, Commerce and Foreign Trade, 19 July 2007. Date of Access: 1 January 2007. http://www.mdic.gov.br/sitio/interna/noticia.php?area=2&noticia=7599

[949] Year of Clean Development will foster actions to reduce carbon emissions, Agency Brazil, (Brasília), 17 July 2007. Date of Access: 1 January 2008. http://www.agenciabrasil.gov.br/noticias/2007/07/17/materia.2007-07-17.4139491859/view

[950] Consultations and awards granted on energy efficiency, Ministry of Mines and Energy, (Brasilia), 25 July 2007. Date of Access: 27 December 2007. http://www.mme.gov.br/site/news/detail.do?newsId=13327&currentArea=

[951] Eletrobrás and Eletronorte promote seminar on the Eletronorte Program on Energy Efficiency and Education in Pará, Ministry of Mines and Energy, Eletrobrás, 16 August 2007. Date of Access: 30 December 2007. http://www.eletrobras.gov.br/elb/portal/main.asp?View=%7BEB7EA1A1%2D360E%2D40FA%2D9360%2D742E53C8C220%7D&Team=&params=itemID=%7B7885307D%2D3E27%2D40B8%2DA2A1%2DBCFB99218A3B%7D%3B&UIPartUID=%7B9E178D3B%2D9E55%2D414B%2DA540%2DEB790C1DF788%7D

Analyst: Christine Toczeck

China

Background

China has recently overtaken USA as the world's largest emitter of GHGs.[952] According to one estimate, China accounted for two-thirds of the more than 560 coal-fired power units built in 26 nations between 2002 and 2006.[953] Thus, positive policy developments in China have the potential to make a significant impact on global emissions. In the past year, the government has introduced numerous regulatory initiatives that address energy security and climate change, adding to an ongoing trend. With electricity demand expected to grow by 4 % a year through 2030, the Government has an interest in promoting cheap and renewable energy alternatives and domestic energy-efficiency measures.

Climate change is increasingly becoming a priority area for the Chinese government, for reasons of economic development, public health, and energy security. In 2005, China announced its 11th Five Year Plan, which included greater energy conservation and development of renewable energy. In 2006, China implemented its renewable energy law, which calls for 10 % of China's energy to come from renewable sources by 2020.[954] In June 2007, the government released a National Climate Change Programme, which identified policy goals and measures to reduce GHG emissions and adapt to climate change. For example, it outlines a plan to raise the proportion of renewable energy in primary energy supply by 10 %, by 2010, and includes specific recommendations for reducing emissions in key industrial sectors, such as iron and steel, nonferrous metal, oil and petrochemicals, building material, transportation, agricultural machinery, building, and commercial and residential energy consumption.[955]

Having taken its own steps toward reducing emissions and promoting renewable energy, China seems well placed to comply with climate-related commitments set forth at the G8 Summit in Heiligendamm. Although binding emissions targets have not been set, China has upheld its commitments in terms of stabilising GHG concentrations by creating its own domestic plan, and signing further multilateral agreements—most notably at COP-13 in Bali—to voluntarily undertake sustainable development policies and measures. In terms of promoting less emission-intensive energy production and

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[952] Chinese CO2 emissions in perspective - Country intercomparison of CO2 emissions. Netherlands Environmental Assessment Agency (MNP), 22 June 2007. Date of Access: 21 February 2008. http://www.mnp.nl/en/service/Newsitems/20070622ChineseCO2emissionsinperspective.html

[953] Global boom in coal power – and emissions, Mark Clayton, Christian Science Monitor, 22 March 2007. Date of Access: 28 June 2008. http://www.csmonitor.com/2007/0322/p01s04-wogi.htm

[954] Background Note: China, US Department of State, October 2007. Date of Access 21 January 2007. http://www.state.gov/r/pa/ei/bgn/18902.htm

[955] China's National Climate Change Programme, prepared under auspices of National Development and Reform Commission, People's Republic of China, June 2007. Date of Access: 8 January 2008. http://en.ndrc.gov.cn/newsrelease/P020070604561191006823.pdf.

consumption, China has honoured its commitments by investing heavily in renewable technologies, and entering into international cooperative agreements.

Team Leader and Analyst: Karlin Younger

China	Score
2A. Stabilise GHG Concentrations	**+1**

Since COP-11 in Montreal, a post-Kyoto framework has been the primary agenda item in the UNFCCC negotiations, which has put pressure on rapidly developing countries—particularly the O5 countries—to accept binding emission reduction commitments in a post-2012 agreement. For China, these pressures have only increased as new findings on China's growing emissions are released. In November 2006, the International Energy Association (IEA) indicated that Chinese CO_2 emissions would surpass those of the U.S.—the world's largest emitter—between 2007-2009.[956] Subsequently, in June 2007, a Dutch organization released a report saying that China's emissions in 2006 has already surpassed those of U.S.[957] Within China these pressures were reflected by a series of policies have come out since the release of their National Climate Change Programme in early June 2007.[958]

China's National Climate Change Programme is its first national policy to address the issue.[959] It emphasizes the urgency of climate change, and especially its impact on China's economic development and ecosystem security. The programme outlines two targets: cutting energy consumption per unit GDP by 20 % between 2006-2010 in comparison to 2005 levels; and reducing the emission of major industrial pollutants by 10 % in the same period. It identified adaptation strategies for four major sectors—agriculture, forestry, fresh water sector and coastal management—and put an emphasis on developing monitor systems and strategic responses to extreme weather events. Finally, the programme stressed the importance of technology innovation in combating climate change.

The National Climate Change Programme reflects China's continued preference for emission-intensity targets, rather than emissions reduction

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956 Medium-Term Oil Market Report: A Focus on the Asia-Pacific Region, International Energy Association (IEA), 5 November 2006. Date of Access: 3 February 2008. http://www.iea.org/sydney/regional_information/mt_omr.pdf

957 Chinese CO2 emissions in perspective - Country intercomparison of CO2 emissions. Netherlands Environmental Assessment Agency (MNP), 22 June 2007. Date of Access: 21 February 2008. http://www.mnp.nl/en/service/Newsitems/20070622ChineseCO2emissionsinperspective.html

958 China Addresses Challenge of Climate Change, Xinhua News Agency, 22 December 2007. Date of Access: 24 January 2008. http://news.xinhuanet.com/english/2007-12/22/content_7293657.htm

959 China's National Climate Change Program, People's Republic of China, June 2007. Date of Access: 3 February 2008. http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File188.pdf

cuts irrespective of economic growth rates. The earlier 'National Climate Change Assessment' included the ambitious goal of cutting energy intensity by 40 % by 2020, and 80 % by 2050, from 2000 levels. However, the 'National Climate Change Assessment', which is separate from the "National Climate Change Programme", was never officially released, possibly due to the stringency of the target.[960] Nevertheless some experts argue that even the "National Climate Change Assessment" targets would not have been a stringent enough response to climate change.[961]

In order to fulfill the targets set out in China's National Climate Change Programme, a series of policies were issued to strengthen implementation and enforcement. On 3 June 2007, China's National Development and Reform Commission (NDRC) issued its "General Work Plan for Energy Conservation and Pollutant Discharge Reduction." The Ministry of Science and Technology launched "China's Scientific and Technological Actions on Climate Change and National Financial and Research Initiatives on Climate Change", which emphasised and secured funding for scientific research on climate change, including mitigation and adaptation.[962] In September 2007, China's Ministry of Science and Technology (MOST) launched a new energy conservation guide, which encouraged the public to save energy and reduce their CO_2 emissions. This was the first time that the government had attempted to engage the public in behavioural change that would encourage energy conservation.[963] Based on the Energy Saving Law, which took effect on 1 April 2008, performance reviews of local government officials will include an assessment of their energy-saving efforts.[964]

The updated national energy consumption standards, which affect 46 areas from coal-fired power to household induction cookers, were issued as a major initiative to lower energy intensity.[965] To provide financial support for mitigation measures, the Ministry of Finance and the NDRC started a national campaign that included a promotion of the use of 150 million energy-efficient light bulbs from 2008 to 2010. It is estimated that this action, which was

960 China rejects caps, aims to cut "carbon intensity", Reuters, 17th April. 2007. Date of Access: 3rd. February 2008.
http://uk.reuters.com/article/environmentNews/idUKSP22307820070417
961 China's Carbon Intensity Target, World Resources Institute (WRI), April 2007. Date of Access: 3 February 2008. http://www.wri.org/stories/2007/04/chinas-carbon-intensity-target
962 China's Scientific & Technological Actions on Climate Change, People's Republic of China, June 2007. Date of Access: 3 February 2008.
http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File199.pdf
963 China Launches Energy Conservation Guide for Citizens, Worldwatch Institute, 13 September 2007. Date of Access: 20 December 2007.
http://www.worldwatch.org/node/5346
964 China Energy Saving Law ups pressure on officials, Reuters, 29 October 2007. Date of Access: 28 June 2008.
http://www.reuters.com/article/environmentNews/idUSPEK13377620071029
965 New Energy Consumption Standards Released, China Daily, 18 April 2008. Date of Access: 12 June 2008. http://www.chinadaily.com.cn/bizchina/2008-04/18/content_6628137.htm

initiated in May 2008, will help China reduce its CO_2 emissions by 60 million tons.[966]

In November 2007, China created a National CDM Fund, financed through a tax on each CDM project in the country. Revenues will be used to support domestic mitigation and adaptation projects.[967] This fund reflects the original purpose of CDM, which included the need to support sustainable development in the host countries, in addition to providing incentives for investors to finance clean energy projects.

China has used foreign dialogue and bilateral partnership to advance its climate change agenda both at home and abroad. The government made joint statements on climate change with Australia and France in September and November 2007 respectively.[968] An Australian funded clean-coal project and annual ministerial talks on climate change were established during the newly elected Australian prime minister's visit to China in April 2008.[969] Moreover, China's recent presidential visit to Japan in May 2008 enhanced bilateral cooperation in the fields of carbon capture and storage (CCS) technology, nuclear energy and biofuels.[970]

At COP-13 in Bali, the Chinese delegation submitted a position paper to the UNFCCC secretariat that included a proposal to voluntarily commit to Sustainable Development Policies and Measures (SD-PAMs) in the post-Kyoto period.[971] An SD-PAM is a voluntary commitment to take a lower-emission path while in pursuit of its domestic policy objectives, such as energy security or provision of electricity.

China's rapidly growing GDP makes emission-reduction targets harder to meet than emission-intensity targets. Whilst China has adopted emission-intensity targets, this action still shows a commitment to addressing climate change, and sends a strong signal to domestic market actors and the broader investment community. These targets, alongside the policy initiatives discussed previously, qualify China as fully compliant with this commitment.

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[966] China Sets Energy-saving Lightbulb Target for Provincial Areas, XinhuaNet, 14 May 2008. Date of Access: 12 June 2008. http://english.people.com.cn/90001/90776/90882/6410871.html

[967] Beijing Sets up Green Fund, FT.com, 9 November 2007. Date of Access: 23 January 2008. http://search.ft.com/ftArticle?queryText=green+fund+&y=0&aje=true&x=0&id=071109000703&ct=0

[968] China, Australia issue joint statement on climate change, energy. Chinaview. 7 September 2007. Date of Access: 23 January 2008. http://news.xinhuanet.com/english/2007-09/06/content_6673497.htm; China, France sign joint statement on Climate Change cooperation, Chinaview. 6 November 2007. Date of Access: 22 January 2008. http://news.xinhuanet.com/english/2007-11/26/content_7149166.htm

[969] China, Australia agree on climate cooperation, 11 April 2008, Reuters. Date of Access: 12 June 2008. http://www.reuters.com/article/environmentNews/idUSSYD27172820080411?sp=true

[970] China, Japan Agree to Enhance Energy Co-op, 9 May 2008, Xinhua Net. Date of Access: 12 June 2008. http://www.chinadaily.com.cn/bizchina/2008-05/09/content_6672446.htm

[971] Growing in the Greenhouse: Protecting the Climate by Putting Development First, World Resources Institute (WRI), December 2005. Date of Access: 20 February 2008. http://www.wri.org/publication/growing-in-the-greenhouse

Analyst: Zhao Ang

Addendum:

- On June 9 2008, China's central bank released a tentative outline for a domestic emissions trading scheme that could cover everything from greenhouse gases to water pollutants, and speed the country's push for greener growth. The plan and key emissions trading concepts were laid out at an afternoon seminar for top officials including the central bank's deputy governor Yi Gang and a deputy general manager of the country's sovereign wealth fund Xie Ping. Nevertheless, The introduction of a more comprehensive national scheme is likely some way off, not least because policymakers are only starting to grapple with the complicated issues.[972]

China	**Score**

2B. Promote Less Emission-Intensive Energy Production +1

Since the G8 Summit in Heiligendamm in June 2007, China has taken measures to reduce the emission-intensity of domestic energy production by increasing the efficiency of fossil-fuel based plants, and expanding renewable energy. In the past year, government support for less emission-intensive energy production has ranged from vocal reaffirmations of policy commitments to the announcement of plans and projects.

Top Chinese officials have publicly reaffirmed China's climate-related commitments in press releases and official statements at several international conferences. On 9 September 2007, at the 15th Economic Leaders' Meeting of the Asia-Pacific Economic Cooperation (APEC), President Hu Jintao called on governments in the region to address the root causes of climate change, and strive towards realizing a low-carbon economy.[973] As part of this call for action, President Hu put forward a four-point proposal on climate change that, inter alia, encouraged increased capital investment and international cooperation in researching and developing energy efficient technologies.[974]

Furthermore, on 21 September 2007, Yu Qingtai, China's special representative of the Ministry of Foreign Affairs for climate change

[972] China Eyes Domestic Emissions Trading Scheme, Reuters, (Beijing), 9 June 2008. Date of Access: 2 July 2008. http://www.planetark.com/dailynewsstory.cfm?newsid=48679&newsdate=09-Jun-2008.
[973] Hu Jintao puts forward 4-point proposal on climate change, Xinhua Net, 8 September 2007. Date of Access: 8 January 2008. http://news.xinhuanet.com/english/2007-09/08/content_6687152.htm
[974] Hu Jintao puts forward 4-point proposal on climate change, Xinhua Net, 8 September 2007. Date of Access: 8 January 2008. http://news.xinhuanet.com/english/2007-09/08/content_6687152.htm

negotiations, reaffirmed China's commitment to battling climate change, mentioning specifically the development of renewable energy technology.[975]

Apart from such supportive statements, China is implementing programmes that are reducing the emission-intensity of domestic energy production. According to WorldWatch, "a combination of policy leadership and entrepreneurial savvy is leading to spectacular growth in renewable energy" in China with investments exceeding $10 billion in 2007, second only to Germany.[976] In June 2007, the government released a National Climate Change Programme, which identified some policy goals and measures to reduce GHG emissions, and adapt to climate change. In terms of reducing the emission-intensity of domestic energy production, the programme outlined a goal to raise the proportion of renewable energy in primary energy supply, by 10 % by 2010.

The programme includes details of expected CO_2 reductions provided by increasing renewable energy in a variety of sectors, including hydroelectric, bio-, nuclear, wind, solar, and tidal energy. "Properly developed" hydropower under the programme is expected to reduce GHG emissions by 500Mt of Co_2, by 2010.[977] Mechanisms proposed to increase renewable energy included a reaffirmed commitment to enforcing and strengthening existing legislation, including the Renewable Energy Law. It also contained resource-specific development plans, including proposals for tidal energy stations in Zhejiang, Fujian, and Guangdong province. Finally, the programme increased financial support for research, in part drawing on bilateral and multilateral funding to assist in science and technology development.[978]

Allocation of funds to support the projects proposed in the National Climate Change Programme is good evidence of China's commitment to addressing climate. On 4 September 2007, Chen Deming, Vice-Chairman of the NDRC, announced the government's plan to invest 2 trillion Yuan (US $265 billion) in renewable energy, by 2020.[979] Over half of the proposed investment will go to dams, but biomass and wind energy also play important roles, and are expected to generate 30 GW of energy each by 2020.[980] On 27 November 2007, China's State Council issued a report, which estimates that an

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[975] China vows to continue efforts to tackle climate change, Xinhua Net, 21 September 2007. Date of Access 8 January 2008. http://news.xinhuanet.com/english/2007-09/21/content_6766062.htm

[976] Powering China's Development: The Role of Renewable Energy, WorldWatch Institute, November 2007. ISBN 13: 978-1-878071-83-5

[977] China's National Climate Change Programme, National Development and Reform Commission (NDRC), June 2007. Date of Access: 30 January 2008. http://en.ndrc.gov.cn/newsrelease/P020070604561191006823.pdf

[978] China's National Climate Change Programme, National Development and Reform Commission (NDRC), June 2007. Date of Access: 30 January 2008. http://en.ndrc.gov.cn/newsrelease/P020070604561191006823.pdf

[979] China plans $265 billion renewables spending, Reuters, 4 September 2007. Date of Access: 8 January 2008. http://www.reuters.com/article/environmentNews/idUSPEK32556820070904?sp=true

[980] China plans $265 billion renewables spending, Reuters, 4 September 2007. Date of Access: 8 January 2008. http://www.reuters.com/article/environmentNews/idUSPEK32556820070904?sp=true

investment equivalent to 1.35 % of the country's GDP will be required to achieve the 2010 target.[981]

Further evidence of commitment to the proposed goals is the NDRC's recent two-year blueprint to reach energy targets. Announced on 18 March 2008, the blueprint specifies how the government plans to reach renewable energy goals, focusing on hydroelectric, biomass, wind and solar energy.[982] For example, total installed biopower capacity is targeted to increase 3,500 MW to reach 5,500 MW in 2010, as cities such as Beijing, Shanghai, and Chengdu have started, or will start, producing biodiesel under the two-year plan.[983]

In addition, on 24 September 2007, the Chinese Academy of Sciences (CAS) announced a three-step plan for the development of the energy industry in China until 2050. Arranged by time periods, the plan proposes three stages: first, until 2020, the focus will be on developing energy efficient technology and collecting, storing, and utilizing carbon dioxide; from 2020-2031, the focus will shift to nuclear energy, maximizing solar energy, and promoting renewable resources as main resources; and from 2031-2050, the goal will be to reduce fossil energy use to less than 60 % of total energy consumption.[984] Lu Yongxiang, the President of the CAS, called the plan a "significant guarantee" of China's commitment to developing a sustainable energy development system, and stated the general goal that renewable energy should meet the general domestic demand by 2050.[985]

Beyond these proposed plans, the MOST officially launched two research projects in China dedicated to renewable energy technology. On 12 November 2007, Shang Yong, Vice Minister of Science and Technology, announced the launch of a new science and technology research project to promote international cooperation on new and renewable energy.[986] The project, jointly conducted by MOST and NDRC, will prioritize support for research of renewable energy, including biomass fuels and biomass power, solar and wind

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[981] Chinese government says 1.35 pct of GDP needed to achieve environment targets, Terry Wang and Goffy Zhao, InterfaxChina, 27 November 2007. Date of Access: 8 January 2008. http://www.interfax.cn/displayarticle.asp?aid=30022&slug=CHINA-ENERGY-ENVIRONMENT.

[982] NDRC releases renewable energy development blueprint for next two years, China Business Newswire, 19 March 2008. Date of Access: 10 June 2008. http://www.uofaweb.ualberta.ca/chinainstitute/nav03.cfm?nav03=75481&nav02=57589&nav01=57272

[983] NDRC releases renewable energy development blueprint for next two years, China Business Newswire, 19 March 2008. Date of Access: 10 June 2008. http://www.uofaweb.ualberta.ca/chinainstitute/nav03.cfm?nav03=75481&nav02=57589&nav01=57272

[984] CAS outlines strategic plan for China's energy development over next 40 years, Xinhua Net, 24 September 2007. Date of Access: 12 January 2008. http://news.xinhuanet.com/english/2007-09/24/content_6783535.htm

[985] CAS outlines strategic plan for China's energy development over next 40 years, Xinhua Net, 24 September 2007. Date of Access: 12 January 2008. http://news.xinhuanet.com/english/2007-09/24/content_6783535.htm

[986] China launches project to enhance co-op on new and renewable energy, Xinhua Net, 12 November 2007. Date of Access: 5 January 2008. http://news.xinhuanet.com/english/2007-11/12/content_7059675.htm

power, and hydrogen energy.[987] Shortly after this, Minister of Science and Technology Wan Gang launched a project jointly sponsored by the MOST, the United Nations Development Programme (UNDP), and the Global Environment Facility (GEF) to research and develop clean energy cars.[988]

On 7 January 2008, the government announced it would take on nearly a ten % stake in ITER, an international fusion research project, by injecting one billion Yuan (approximately US $137.5 million) into the project.[989] At the Oriental Science and Technology Forum held in Shanghai, deputy director of the ITER China Office Luo Delong stated that the aim of the project was to solve China's energy shortage.[990] Furthermore, at the 2008 China Nuclear Energy Conference, Wang Yingsu, general manager of the Huaneng Nuclear Power Development Co. Ltd, announced that construction of a high-temperature gas-cooled reactor will begin in 2009, which will have a total installed capacity of 200MW, particularly suited for western inland regions' energy needs.[991]

Various governmental agencies have announced specific plans and agreements to promote renewable resources such as nuclear energy and biomass. On 15 November 2007 at the World Energy Congress in Rome, Kang Rixin, the general manager of China National Nuclear Corporation, stated that China is expected to double its nuclear power capacity--from 2 % to 4 %—by 2020.[992] Kang also said that China would invest 400 billion RMB£ in 16 nuclear units, eight of which are under construction, with the remaining eight in the preparation phase.

China also upheld commitments to use biomass as a source of energy. On 5 November 2007, a biomass-fired power plant with an installed capacity of 30 MW, and expected to generate 175 million kWh of electricity went into production in the North-Eastern Chinese province of Heilongjiang.[993] The plant is one of eight to be opened in 2007 by the National Bio Energy Co., Ltd,

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[987] China launches project to enhance co-op on new and renewable energy, Xinhua Net, 12 November 2007. Date of Access: 5 January 2008. http://news.xinhuanet.com/english/2007-11/12/content_7059675.htm

[988] Clean energy cars: road for development has "Chinese characteristics", Xinhua Net, 19 November 2007. Date of Access: 5 January 2008. http://news.xinhuanet.com/english/2007-11/19/content_7107219.htm

[989] China joins a powerful push for fusion future, Shanghai Daily, 7 January 2008. Date of Access:15 January 2008. http://news.xinhuanet.com/english/2008-01/07/content_7378662.htm

[990] China joins a powerful push for fusion future, Shanghai Daily, 7 January 2008. Date of Access: 15 January 2008. http://news.xinhuanet.com/english/2008-01/07/content_7378662.htm

[991] China to build demonstration HTGR nuclear power project next year, Interfax, 12 June 2008. Date of Access 13 June 2008. http://www.interfax.com/4/402713/news.aspx

[992] China to double nuclear power capacity by 2020, Xinhua Net, 15 November 2007. Date of Access: 12 January 2008. http://news.xinhuanet.com/english/2007-11/15/content_7084258.htm

[993] Biomass-fired power plant starts operation in NE China, Xinhua Net, 5 November 2007. Date of Access: 15 January 2008. http://news.xinhuanet.com/english/2007-11/05/content_7014381.htm

a subsidiary of the State Grid Corporation of China, and is part of the 11th Five Year Plan, which forecasts bio-energy electricity to reach 5.5 million kilowatts by 2010.[994]

In addition to investment in specific projects, China has implemented training workshops on biomass projects. On 12 November 2007, the Chinese Office of National Coordination Committee on Climate Change (NCCCC) and the National Development Reform Commission (NDRC) sponsored the "Related Training Workshop of Sino-Danish CDM Capacity Building Focusing on Biomass Projects in Local Provinces in China" in Beijing.[995] The workshop was aimed at consulting firms, domestic research institutions, and potential CDM project managers.

China has increased its development and use of wind turbine technology. In 2007, China's turbine manufacturing capacity reached 3 GW, which is expected to double in 2008.[996] China is projected to see 10-15 GW of wind turbine capacity by 2012.[997] China produced its own 1,500 kW turbine in 2006, which entered the market in large quantities in 2007.[998] The first 2,000 kW turbine became ready for testing in late 2007, and is expected to enter the market in 2008, while a 3,000 kW turbine is under development, and is expected to be ready for testing in 2009.[999] As a result of the rapid increase in wind power production, in April 2008, NDRC revised increased the target set out in the 11th Five Year Plan Period plan for wind power development from 5 GW to 10 GW by 2010.[1000]

Finally, China has promoted the use of renewable sources of electricity by enforcing previous legislation. On 25 July 2007, the State Electricity Regulatory Commission (SERC) released a new regulation giving it oversight over power companies, and encouraging those companies to prioritize purchases of the maximum amount of "green" electricity (including energy generated from hydropower, wind power, biomass, etc) available in their coverage areas, as required under China's renewable energy law.[1001]

Despite all of these commitments and projects, China still relies very heavily on coal to meet growing energy demand. According to an article in *The New*

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[994] China turns to clean biomass solution for emission cuts, Xinhua, 5 November 2007. Date of Access: 15 January 2008. http://cdm.ccchina.gov.cn/english/NewsInfo.asp?NewsId=2170
[995] Training Workshop of Sino-Danish CDM Capacity Building Focusing on Biomass Projects Held in Beijing, China Web, 12 November 2007. Date of Access: 15 January 2008. http://cdm.ccchina.gov.cn/english/NewsInfo.asp?NewsId=2104
[996] China's Wind Power Development Exceeds Expectations, World Watch, 2 June 2008. Date of Access: 10 June 2008. http://www.worldwatch.org/node/5758
[997] China's Wind Power Development Exceeds Expectations, World Watch, 2 June 2008. Date of Access: 10 June 2008. http://www.worldwatch.org/node/5758
[998] China's Wind Power Development Exceeds Expectations, World Watch, 2 June 2008. Date of Access: 10 June 2008. http://www.worldwatch.org/node/5758
[999] China's Wind Power Development Exceeds Expectations, World Watch, 2 June 2008. Date of Access: 10 June 2008. http://www.worldwatch.org/node/5758
[1000] China's Wind Power Industry: Blowing Past Expectations, Renewable Energy World, 16 June 2008. Date of Access: 17 June 2008. http://www.renewableenergyworld.com/rea/news/story?id=52764
[1001] China Urges Electricity Suppliers to Buy 'Green' Power', World Watch, 30 August 2007. Date of Access: 5 January 2008. http://www.worldwatch.org/node/5330

York Times, the most-talked-about solution to coal is nuclear power, yet even quadrupling the current share of nuclear power will only increase capacity to roughly 31,000 MW over the next twelve years--the same capacity created by newly-built coal plants every four months.[1002]

Infrastructure is also a problem, with green energy companies facing manufacturing and bureaucratic bottlenecks, while coal-fired plants remain the cheapest and easiest way to meet demand.[1003] However, it is important to note that the Chinese government continues to take steps to improve the situation. For example, before new coal plants are built, the government requires smaller, inefficient, outdated plants to shut down.[1004] Government targets remain enforced despite the higher cost to companies and the resultant delay in construction. While gaps in infrastructure are problematic to policy implementation, the Chinese government continues to promote and mandate more costly solutions to energy demand. This sustained commitment is encouraging, but problems of implementation may make the target of 10 % renewable energy by 2010 an unrealistic goal.

In summary, China has taken steps to research, develop, and increase the use of renewable energy sources, as shown through plans and projects announced since the Heiligendamm Summit in June 2007. In this regard, its renewable energy targets won the praise of Khalid Malik, the UN Development Programme (UNDP) resident representative in China, arguing that the country's "goals to radically increase its energy efficiency and use renewable energy are very ambitious", and shared by few other countries.[1005] On the basis of the scope and depth of its policies and targets, which the government has revisited and increased with new information, China is judged to be in full compliance with its commitments to promote less emission-intensive energy production.

Analyst: Karlin Younger

Addendum:

[1002] China's Green Energy Gap, Keith Bradsher, The New York Times, 24 October 2007. Date of Access: 30 January 2008. http://www.nytimes.com/2007/10/24/business/worldbusiness/24power.html?ei=5090&en=7b2894857eae004d&ex=1350878400&adxnnl=1&partner=rssuserland&emc=rss&adxnnlx=1201727187-+rCN19sMpGu+YoWxvtBb6A

[1003] China's Green Energy Gap, Keith Bradsher, The New York Times, 24 October 2007. Date of Access: 30 January 2008. http://www.nytimes.com/2007/10/24/business/worldbusiness/24power.html?ei=5090&en=7b2894857eae004d&ex=1350878400&adxnnl=1&partner=rssuserland&emc=rss&adxnnlx=1201727187-+rCN19sMpGu+YoWxvtBb6A

[1004] China's Green Energy Gap, Keith Bradsher, The New York Times, 24 October 2007. Date of Access: 30 January 2008. http://www.nytimes.com/2007/10/24/business/worldbusiness/24power.html?ei=5090&en=7b2894857eae004d&ex=1350878400&adxnnl=1&partner=rssuserland&emc=rss&adxnnlx=1201727187-+rCN19sMpGu+YoWxvtBb6A

[1005] Climate of Cooperation, Sun Xiaohua, China Daily, 3 December 2007. Date of Access: 29 January 2008. http://www.chinadaily.com.cn/bw/2007-12/03/content_6293701.htm

- China is preparing the expansion of its coal-to-liquid production reviled by environmentalists for its excessive generation of greenhouse gases. In Inner Mongolia, final touches are currently put to a CTL plant, the biggest outside South Africa, which is expected to convert 3.5 million tonnes of coal per year into 1 million tonnes of oil products such as diesel for cars. If this plant works according to plan, production will be expanded next year, according to Zhang Jiming, deputy general manager at Shenhua Coal Liquefaction. This development strongly counteracts China's efforts to reduce the emission intensity of its energy production, as the whole life-cycle of CTL produces about twice as much CO2 emissions than fossil fuel.[1006]

China	**Score**
2C. Promote Less Emission-Intensive Energy Consumption	**0**

The Chinese government reiterated its traditional stance toward climate change at the United Nations General Assembly in February: it supported the principle of "common but differentiated responsibilities", and called upon developed countries to provide "financial and technological assistance."[1007] Accordingly, the Chinese government's approach to lowering the emission-intensity of energy consumption since the 2007 Summit in Heiligendamm has emphasized new technologies and energy efficiency. Its main actions have been to actively seek international cooperative arrangements for technology sharing. With regard to internal policy changes for improving fuel efficiency standards, China's NDRC prepared its National Climate Change Programme in June 2007.[1008] The program contains guidelines for creating stricter building codes and raising consumer awareness, but most of the measures announced are old commitments repackaged without the addition of new quantifiable goals. As a result, China receives a score of "0", which recognizes that it has arrived at a comprehensive plan toward controlling climate change, backed by budgetary commitments, and because of its bilateral and multilateral actions launched this cycle. However, there are lingering questions as to how and whether these actions will in fact be effectively implemented and have the desired outcome.

[1006] China builds plant to turn coal into barrels of oil, Reuters, (Beijing), 5 June 2008. Date of Access: 2 June 2008. http://www.planetark.com/dailynewsstory.cfm?newsid=48644&newsdate=05-Jun-2008.

[1007] 'Statement by H.E. Ambassador Yu Qingtai, China's Special Representative for Climate Change Talks, at the Thematic Debate of the United Nations General Assembly on Climate Change', Ministry of Foreign Affairs of the People's Republic of China, 12 February 2008. Date of Access: 9 June 2008. http://www.fmprc.gov.cn/eng/wjb/zwjg/zwbd/t406936.htm

[1008] China's national Climate Change Programme, prepared under the auspices of the National Development and Reform Commission, People's Republic of China, June 2007. Date of Access: 8 January 2008. http://en.ndrc.gov.cn/newsrelease/P020080604561191006823.pdf.

In terms of specific commitments, China's National Climate Change Programme commits the government to accelerate the formulation and implementation of laws aimed at: saving electricity, conserving petroleum, and making buildings more efficient.[1009] It contains specific recommendations regarding energy conservation technologies in key sectors. For instance, it recommends that in the cement industry, energy efficient grinding equipment should be promoted.[1010] Similarly policy recommendations are made for other industries, although no specific regulations are proposed. China's standards for fuel efficiency will also rise next year, requiring cars to use 6.5 litres per 100 km travel, up from the current requirement of 6.9 litres.[1011] China has one of the most fuel-efficient vehicle fleets in the world—no car assembled in North America would meet these standards[1012].

On 26 November 2007, the Ministry of Finance announced that it had earmarked 3.2 billion USD to improve energy efficiency and cut pollutant emission.[1013] Two days later, Premier Wen Jiabao declared at the China-EU Business Summit that China would invest 300 billion USD on environmental protection in the next five years, 30 % of total on the world market.[1014]

Aside from the creation of a national plan and budgetary commitments, China has also actively sought and become involved in a number of international cooperative arrangements. Indeed, according to Gao Guangsheng, the Director-General of China's NDRC, the country is eager to learn about and implement new technologies, but access to advanced knowledge has been at times obstructed. He cited an agreement to transfer clean power-generation technology from the USA to China that has been blocked by the U.S. Congress, as well as the Danish environment minister's remark that transfers of advanced wind power technology would be matter for companies rather than government.[1015] Nevertheless, over the course of the last cycle, China has announced joint ventures with the United Kingdom, USA, India, Australia and Russia, among others.

[1009] China's national Climate Change Programme, prepared under the auspices of the National Development and Reform Commission, People's Republic of China, June 2007. Date of Access: 8 January 2008. http://en.ndrc.gov.cn/newsrelease/P020080604561191006823.pdf.
[1010] China's national Climate Change Programme, prepared under the auspices of the National Development and Reform Commission, People's Republic of China, June 2007. Date of Access: 8 January 2008. http://en.ndrc.gov.cn/newsrelease/P020080604561191006823.pdf.
[1011] 'China and Australia unveil new policies on global warming', The Economist, 7 June 2007. Date of Access: 5 February 2007, http://www.economist.com/world/asia/displaystory.cfm?story_id=9302917
[1012] 'China's green leap forward', The Toronto Star, 8 March 2008. Date of Access: 9 June 2008. http://www.thestar.com/News/Ideas/article/326294
See also 'China goes global cool', Yes! Magazine, Spring 2008. Date of Access: 9 June 2008. http://yesmagazine.org/default.asp
[1013] Long-term European loan to invest in China environmental projects, People's Daily Online, 30 November 2007. Date of Access: 8 January 2008. http://english.people.com.cn/90001/90776/90883/6312474.html
[1014] 'Long-term European loan to invest in China environmental projects', People's Daily Online, 30 November 2007. Date of Access: 8 January 2008. http://english.people.com.cn/90001/90776/90883/6312474.html
[1015] 'China wary on international climate goals-official', Reuters, 29 November 2007. Date of Access: 8 January 2008. http://www.reuters.com/article/latestCrisis/idUSL29480066.

On 5 September 2007, China and the United Kingdom signed the Near Zero Emissions Coal (NZEC) initiative as part of the EU-China Partnership. The purpose of the project is to mitigate carbon dioxide emissions from China's increasing use of coal. As part of the agreement, the United Kingdom will provide 7 million USD in funding and technical expertise for the first phase of NZEC, during which China will develop its carbon capture and storage technology. During British Prime Minister Gordon Brown's visit to China in January 2008, the two countries signed an agreement pledging to increase collaboration to reduce emissions growth and develop cleaner technologies. On 18 January 2008, Brown announced a joint project to construct the world's first "eco-city" at Dongtan, on Chongming Island off Shanghai.[1016] China will also receive at least £50 million from British government funds to back investment in energy efficiency, renewables, clean coal and carbon capture and storage.[1017]

On 20 September, China's MOST signed a five-year agreement with the U.S Department of Energy to cooperate on automobile efficiency. The plan includes cooperation on electric, hybrid, fuel cell, and alternative fuel vehicles.[1018] In January 2008, the US government began a program aimed at helping factories in China reduce their carbon emissions while generating business for American and other environmental-services companies. Known as P2E2—which stands for pollution prevention and energy efficiency—the program connects Chinese factories with capital and expertise allowing them to upgrade equipment and cut their emissions and energy use.[1019]

On 25 April, China teamed up with the US Chicago Climate Exchange to establish a carbon emission market in the city of Tianjin near Beijing.[1020] In addition, arrangements have been made at lower levels of government,[1021] and climate control has been discussed at various state visits and multilateral forums. On 29 November 2007, a new UN-China Climate Change Partnership Framework (CCPF) was also announced, and should be launched during 2008. The partnership will support, among other initiatives, the transfer of new technology and green investment mechanisms. It will attract $19 million

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[1016] 'Britain, China boost links on tackling climate change', AFP, 18 January 2008. Date of Access: 9 June 2008.
[1017] 'Britain, China boost links on tackling climate change', AFP, 18 January 2008. Date of Access: 9 June 2008.
[1018] US signs 5-year cooperation plan with China's Ministry of Science and Technology, Department of Energy, (Washington), 20 September 2007. Date of Access: 9 December 2007. http://www.energy.gov/news/5518.htm
[1019] 'Big firms invest in a greener China', The Wall Street Journal, 14 January 2008. Date of Access: 9 June 2008.
http://online.wsj.com/article/SB120023060081786631.html?mod=googlenews_wsj
[1020] 'China to tie up with Chicago carbon emissions bourse', AFP, 25 April 2008. Date of Access: 9 June 2008.
http://afp.google.com/article/ALeqM5ihCS_L9RmvNeFlasTBb5XUsoVZ_A
[1021] For instance, California announced in April that it had reached a deal with the United Nations to share research, policy initiatives and technological innovations aimed at reducing GHG emissions with Chinese provincial governments. See 'California to serve as climate model for China', Reuters, 22 April 2008. Date of Access: 9 June 2008.
http://www.reuters.com/article/bondsNews/idUSN2230916220080422

in financing, with the UN contributing $12 million, the Chinese government $2 million, and the rest to be raised from the private sector globally.[1022]

Despite these actions, there are also reasons to be wary of China's progress. A report from the German Development Institute on China's recent climate-relevant policies found that the country has struggled hard to increase its energy efficiency but that many of its policies, while contributing to mitigation, have been motivated by cutting energy costs and increasing energy security rather than cutting carbon emissions. The authors wrote, "climate change is a cross-sectoral issue, but China considers it mainly as an economic issue."[1023] It is also unlikely that China will reach its 5-year objective of reducing emission per unit GDP by 20 % by 2010. Indeed, only Beijing and five other provinces or municipalities improved their emission efficiency by 4 % this year, and according to NDRC Minister Ma Kai, "it is extremely hard to achieve this year's goal."[1024] Public awareness is lacking and the influence of nongovernmental sectors is limited, although the National Climate Change Programme contains a commitment to launch a publicity campaign targeting all levels of government and society.[1025]

In conclusion, China has initiated numerous policy initiatives to increase the efficiency of domestic energy consumption. The country faces significant challenges in implementation, since the effectiveness of these governmental measures depends on whether public agencies at all levels have the capacity and political will to implement them. While China's overall performance in the run-up to the G8 Summit in July 2008 has been positive, particularly its willingness to engage in bilateral cooperation with other countries, there are indications that the policy actions are doing little to reduce the emission-intensity of domestic energy consumption. As a result, China is considered to be only in partial compliance with this commitment.

Analyst: Yanbai Andrea Wang

[1022] 'UN to help nation fight global warming', People's Daily Online, 29 November 2007. Date of Access: 8 January 2008. http://english.peopledaily.com.cn/90001/90776/90883/6311623.html.
[1023] 'China's energy policies do not tackle climate change', Science and Development Network, 21 January 2008. Date of Access: 9 June 2008. http://www.scidev.net/en/news/chinas-energy-policies-do-not-tackle-climate-cha.html
[1024] 'China fails environmental targets', BBC News, 10 January 2006. Date of Access: 8 January 2008. http://news.bbc.co.uk/1/hi/world/asia-pacific/6247119.stm.
[1025] The programme provides broad guidelines regarding the full use of mass media and the creation of incentive mechanisms to encourage public participation and enterprise.

India

Background

India is attracting increasing attention in the global climate debate. This attention reflects both the physical and political role that India holds[1026]. Physically, the country's population of 1.03 billion[1027], and situation on the Himalayan-fed South-Asian mega-deltas, make it highly vulnerable to the effects of climate change. The 4th Assessment Report from the IPCC suggests that monsoonal changes, Himalayan glacier retreat, and sea level rise around the low-lying coastal metropolises of Mumbai and Chennai all threaten India's growing population[1028]. Indeed, Hurricane Nargis' devastating impact in Myanmar in May 2008 has popularised in the Indian press as illustrative of this threat[1029].

Politically also, India is a major stakeholder in the global search to curb dangerous climate change. As the second-fastest growing economy in the world, with an annual economic growth of 8.7 % between 2001 and 2006, India's energy consumption has risen by 3.7 % over the same period[1030]. This largely fossil-fuel based growth has contributed to rising greenhouse gas emissions—rising from 682MtCO_2 in 1990 to 1,342MtCO_2 in 2004[1031]. Despite this growth, however, India remains a country with severe poverty; its own estimates suggest that around 55 % of households remain cut-off from the electricity grid, largely in rural areas[1032]. Indeed, India's position in the Human Development Index slipped by two places to 128th in 2007, reflecting the difficulties of distributing this new economic growth across the country[1033]. In per capita terms, Indian emissions total 1.2 tCO_2 compared to

[1026] Stern Review 2006, HM Treasury. http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_summary.cfm Date of Access: 20 December 2007
[1027] India Census 2001, Govt. of India. http://www.censusindia.gov.in/Census_Data_2001/India_at_glance/popu1.aspx Date of Access: 20 December 2007
[1028] IPCC, 2007: *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II*. http://www.ipcc.ch/ipccreports/ar4-wg2.htm Date of Access: 2 January 2007
[1029] *It's the sign of things to come,* The Hindustan Times, New Delhi Edition, 19.05.08
[1030] *Tough Indian line on greenhouse norms,* The Hindustan Times, New Delhi Edition, 31.10.07
[1031] UNDP Human Development Report 2007/2008: Fighting climate change: Human solidarity in a divided world. http://hdr.undp.org/en/reports/global/hdr2007-2008/ Date of Access: 20 December 2007
[1032] Presentation during the 4th Dialogue Workshop to UNFCCC at Vienna, 28 August 2007. www.unfccc.int/files/meetings/dialogue/application/pdf/070828_ray.pdf Date of Access: 20 December 2007
[1033] UNDP Human Development Report 2007/2008: Fighting climate change: Human solidarity in a divided world. http://hdr.undp.org/en/reports/global/hdr2007-2008/ Date of Access: 20 December 2007

20.6 tCO_2 in the United States[1034], and CO_2 emissions per kcal food energy produced are around one-seventeenth of the United Kingdom[1035].

Within this context India has a clear stance on how the G8+5 climate negotiations should proceed. India signed up to the UNFCCC in 1993 as a 'non-Annex I' state, and so has to date not taken on binding emissions-reduction targets.[1036] It is, nevertheless, a signatory to the Kyoto Protocol, and has—recently through the G8—expressed a desire to 'cooperate' internationally.[1037] However, the Indian government follows the 'common but differentiated' stance whereby it argues that while responsibility for current CO_2 emissions is increasingly global the historic 'atmospheric stock' is due to developed countries.[1038] Consequently, India's approach to climate policy is based per capita emissions rather than country totals.[1039] The government argues that emissions targets should be based around an individual's level of CO_2 usage. India also stresses its primary poverty reduction commitments under the Millennium Development Goals.[1040] Indeed, at a meeting with Al Gore in March 2008, Prime Minister Singh reaffirmed that India 'will not commit to any emission targets that risk slowing economic growth.'[1041]

The 2007/8 compliance period reflects this broad attitude. India's efforts to fulfill its commitments can be described as preparatory rather than all-embracing. Much government action is focused on building partnerships and policy documents rather than actually effecting change. India will only accept efforts to stabilise GHGs that fall within the 'common but differentiated' perspective; thus, on one hand the internationally-funded CDM has flourished while, on the other, domestic efforts to reduce emissions through implemented policies are limited. This is reflected in terms of energy production and consumption also, where the government has signalled interest but faces challenges in implementation. On this basis India has been awarded 0 for all three commitments.

Analysts: Simon Billett (Team Leader), Jodi Young, Aparna Sridhar

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[1034] UNDP Human Development Report 2007/2008: Fighting climate change: Human solidarity in a divided world. http://hdr.undp.org/en/reports/global/hdr2007-2008/ Date of Access: 20 December 2007

[1035] India: Addressing Energy Security and Climate Change, Ministry of Environment and Forests, (New Delhi), October 2007. Date of Access: 1 December 2007. http://envfor.nic.in/divisions/ccd/Addressing_CC_09-10-07.pdf

[1036] UNFCCC. http://unfccc.int/essential_background/convention/items/2627.php Date of Access: 5 December 2007

[1037] Statement by Prime Minister, Dr Manmohan Singh. Printed in *The Challenge of Climate Change,* The Hindustan Times, New Delhi Edition, 1 October 2007

[1038] *Rich nations must correct damages done by them to climate, says Manmohan,* The Hindustan Times, New Delhi Edition 3January 2008

[1039] Prime Minister's Inaugural address at the Delhi Sustainable Development Summit on February 7, 2008. http://pmindia.nic.in/pressrel.html Date of Access: 1 June 2008

[1040] Presentation during the 4th Dialogue Workshop to UNFCCC at Vienna, 28 August 2007. www.unfccc.int/files/meetings/dialogue/application/pdf/070828_ray.pdf Date of Access: 20 December 2007

[1041] *Al Gore meets Manmohan Singh, discusses climate change*, The Hindustan Times, New Delhi Edition, 14 March 2008

India	Score
2A. Stabilise GHG Concentrations	**0**

India's efforts to mitigate dangerous climate change are embryonic at this stage. As in 2006/7, the majority of the action has been planning rather than implementing, with several of these plans being slow to develop.

Most significantly, India has defined its position on emissions cuts around its wider view of the 'common but differentiated responsibility' principle. The Human Development Report 2007 suggested that emissions should be cut by 20 % in India by 2050. In response, the Planning Commission's Deputy Chairperson, Montek Singh Ahluwalia, has suggested that this proposal is 'fundamentally misconceived' as it is based on country-wide emissions, rather than the per capita emissions approach that India has adopted[1042]. The government has further argued that it is the responsibility of developed countries to reduce emissions; India, they argue, should be allowed to develop unhindered, albeit along a sustainable route[1043]. This view was strongly aired at the Bali Summit in December 2007[1044]

In place of caps, Prime Minister Singh has proposed an upper limit above which emissions will not increase; India's emissions, he argues, will not rise about the per capita level of industrialised countries[1045]. Since the summit, this approach has been adopted across the government[1046]. Rather than a reduction on current emissions, this ceiling gives room for a potential twelve-fold increase in per capita emissions over the next UNFCCC commitment periods[1047]. Dr. Singh has argued that development in India will increase 'adaptive capacity'—a more important goal for a country with 70 % rural population[1048]. In the budgetary year 2006-7, 2.5 % of GDP was spent on climate adaptation, mostly in the form of disaster relief[1049].

[1042] *UN targets are flawed, says India,* The Hindustan Times, New Delhi Edition, 27 November 2007
[1043] *Is climate change the new NPT?,* The Hindustan Times, New Delhi Edition, 6 May 2008
[1044] *Plan targets 20 pc energy intensity cut,* The Indian Express, New Delhi Edition, 10 December 2007
[1045] India: Addressing Energy Security and Climate Change, Ministry of Environment and Forests, (New Delhi), October 2007. http://envfor.nic.in/divisions/ccd/Addressing_CC_09-10-07.pdf Date of Access: 1 December 2007.
[1046] *India's per capita GHGs emission not to increase beyond developed nations,* The Hindustan Times, New Delhi Edition, 11 December 2007
[1047] Based on per capita emissions of 1.2 tCo2 for India and 13.3 for high income countries (Annex Table 1, page 69). UNDP Human Development Report 2007/2008: Fighting climate change: Human solidarity in a divided world. http://hdr.undp.org/en/reports/global/hdr2007-2008/ Date of Access: 20 December 2007
[1048] Indian Census 2001. www.censusindia.net/ Date of Access: 20 December 2007
[1049] India: Addressing Energy Security and Climate Change, Ministry of Environment and Forests, (New Delhi), October 2007. http://envfor.nic.in/divisions/ccd/Addressing_CC_09-10-07.pdf Date of Access: 1 December 2007.

Alternatives to this per-capita upper limit have been discussed by the government at the UNFCCC[1050]. A presentation by the Deputy Secretary of the Ministry of Environment and Forests in August 2007 argued that investment of US$153 billion would be required to reduce India's CO_2 emissions by 2.5 % by 2016 relative to 2001 levels; in the longer term this figure climbs to US$2.5 trillion for a 9.7 % CO_2 emissions reduction by 2036[1051]. In line with its broader stance, India remains adamant that CO_2 emissions can only be reduced if such costs are met by wealthier countries[1052].

Within this context, however, India itself has made some inroads to tackling climate change. In terms of government structure and bureaucracy, India has made major advances in establishing a foothold. Most notable is the National Action Plan on Climate Change from the Prime Minister's Council on Climate Change. This report—due to be published at the end of June—will detail the main areas on which India will focus its effort around the broad banners of climate mitigation and adaptation. In terms of the commitment to stabilise GHG emissions, the report's eight 'mission areas' focus around 'efficiency' rather than 'caps and cuts'[1053]. The 'Solar Mission' aims to create public-private partnerships to research and develop large-scale photovoltaic renewable energy, while the 'Energy Conservation Mission' aims to reduce energy wastage at the consumer end of the chain through improving building insulation[1054]. The National Strategy also reaffirms the Green India Project[1055], which already receives Rs. 750,000,000[1056]. The Project is presented by the Indian government as its major carbon sink initiative, and aims to six million hectares of such forest sinks by 2018[1057]. The proposal tabled by India at the Bali Summit tries to extend this project; the summit negotiation on financing carbon sinks through afforestation successfully established the mandate for an international fund, and—in terms of compliance—illustrate that India is willing to curb emissions, but at the cost of industrialised countries.

[1050] Presentation during the 4th Dialogue Workshop to UNFCCC at Vienna, 28 August 2007. www.unfccc.int/files/meetings/dialogue/application/pdf/070828_ray.pdf Date of Access: 20 December 2007

[1051] Presentation during the 4th Dialogue Workshop to UNFCCC at Vienna, 28 August 2007. www.unfccc.int/files/meetings/dialogue/application/pdf/070828_ray.pdf Date of Access: 20 December 2007

[1052] Presentation during the 4th Dialogue Workshop to UNFCCC at Vienna, 28 August 2007. www.unfccc.int/files/meetings/dialogue/application/pdf/070828_ray.pdf Date of Access: 20 December 2007

[1053] *India's climate change action-plan takes the safe way: no to caps, yes to efficiency,* The Indian Express. Posted online: 4 June 2008 http://www.indianexpress.com/story/318373.html

[1054] *India's climate change action-plan takes the safe way: no to caps, yes to efficiency,* The Indian Express. Posted online: 4 June 2008 http://www.indianexpress.com/story/318373.html

[1055] *Plan on climate behind schedule,* Times of India, New Delhi Edition, 30 November 2007

[1056] *India's climate change action-plan takes the safe way: no to caps, yes to efficiency,* The Indian Express. Posted online: 4 June 2008 http://www.indianexpress.com/story/318373.html

[1057] Prime Minister's Statement following second meeting of the PM's Committee. Published in *Green India Project aims at Greening Six Million hectares of Degraded Forestland,* The Hindustan Times, New Delhi Edition, 13 July 2007

Emission caps are not included in the National Strategy. Although being included in the original draft report, the Prime Minister's Council removed emissions caps; they were removed because of the contradiction with India's international positioning of responsibility for climate mitigation with developed countries[1058]. The National Strategy has been weakened, therefore, to harmonise the 'common but differentiated' viewpoint and domestic policy. Instead, India's emission strategy will be built around a system of emission *targets*[1059]. The Bureau of Energy Efficiency has proposed a mechanism whereby companies that exceed their 'target emission' can trade this excess with other emitters. The Bureau suggests that this 'exceed and trade' (as opposed to 'cap and trade') system will create a saving of 10,000Mw of carbon-emitting energy by the end of the 11th five-year plan[1060]. Unlike the cap-and-trade system, the trading of emissions over the set target is not mandatory.

While information about the National Strategy has been available to the media, the actual document is itself not yet published; the report has been delayed several times from its original publication date of late 2007, and indicates how progress on developing a national plan to meet commitments has been slow[1061]. The delayed publication of the report means that none of its policies will be implemented by the end of this compliance period. As a result, this major governmental effort has made little impact to stabilising emissions in the 2007/8 cycle.

Nevertheless, as well as the development of this central policy, other areas of policy-making have been developed. In February 2008 former-Foreign Secretary Shyam Saran was appointed as the government's Special Envoy on climate change; the Envoy's role is to act as a 'point man' to co-ordinate the central response to reducing GHG emissions[1062]. Assisting Mr. Saran is a permanent group of negotiators[1063]. This body will present and lobby for India's stance at all international summits and conferences on climate change. While impressive as a bureaucratic response, these efforts do not directly reduce India's emissions; instead they attempt to form a national response to the Bali Action Plan, which will conclude in December 2009[1064].

India has also pledged to increase research on emission reduction. In January 2008, the government announced its plans to identify and establish a National Centre of Excellence on climate mitigation research; to date this process continues with little discernable progress[1065]. In fact, the 11th five-year plan suggests that funding available for pursuing research in to the UNFCCC

[1058] *Kyoto is not karma,* The Hindustan Times, New Delhi Edition, 5 June 2008
[1059] *Green formula: exceed to succeed,* The Indian Express, New Delhi Edition, 10 June 2008
[1060] *Green formula: exceed to succeed,* The Indian Express, New Delhi Edition, 10 June 2008
[1061] *Plan on climate behind schedule,* Times of India, New Delhi Edition, 30 November 2007
[1062] *Saran uses N-stick to tackle rich polluters,* The Indian Express, New Delhi Edition, 5 April 2008
[1063] *Permanent group on climate change,* The Indian Express, New Delhi Edition, 19 March 2008
[1064] *Permanent group on climate change,* The Indian Express, New Delhi Edition, 19 March 2008
[1065] *Climate issue needs global will: PM,* The Hindustan Times, New Delhi Edition, 3 January 2008

commitments has actually been reduced from Rs. 300,000,000 to Rs. 132,500,000[1066]. However, new government funding has been made available through a new Green Venture Capital Fund; this scheme aims to promote the development of low-emitting technologies through public-private partnership in India[1067]. Moreover, a joint UK-India project to identify the current barriers to investment in clean technology in India was announced by the Indian Prime Minister in January 2008[1068]. As yet, however, none of these schemes are operational, and so once again the impact in the current compliance period is limited. In fact, research reports by Greenpeace suggest that initiatives already in place are also having little impact. The Prime Minister's pledge to replace incandescent bulbs with Compact Fluorescent Lamps (CFL), for example, has moved much more slowly than originally planned.[1069] Once again, the major problem with India's efforts to comply with its G8 commitments is at the implementation stage.

Other established programmes have, however, been progressing well since the Heiligendamm Summit. The major example of this is the Clean Development Mechanism (CDM). Before the 2007 Summit, the CDM had resulted in an emissions reduction of 27mtCO_2[1070] from its 667 projects in India[1071]. Since July 2007, India has continued its joint lead with China in terms of number of CDM projects, notably with the announcement of an Indian Railways CDM project in November 2007[1072]. In April 2008 the government announced that two major cities—Hyderabad and Mumbai—would also participate in a CDM project to supply CFLs to all domestic and commercial power consumers; this is expected to cut 100,000 of coal[1073]. The success of CDM in India is a major achievement, and goes some way to fulfilling its commitment to take action to stabilise its emissions. While CDM organisation is in one sense a subnational issues, in India has been keen to expand its CDM participation, and set up a National CDM Authority after COP-7[1074]. Technology transfer is currently proposed by the government as the best way to combine sustainable growth

[1066] Eleventh Five Year Plan (2007-2012), Planning Commission, Government of India (India). Date of Access: 5 June 2008. http://planningcommission.nic.in/aboutus/committee/wrkgrp11/wg_envtal.pdf
[1067] *State needs plan on Global Warming: Dr. Pachauri,* The Hindustan Times, New Delhi Edition, 4 March 2008
[1068] Joint Statement issued after India-UK Summit by the Office of the Indian Prime Minister, 21 January 2008. http://pmindia.nic.in/pressrel.html Date of Access: 5 June 2008
[1069] *Greenpeace blames India for going slow on "Ban the Bulb" campaign,* The Hindustan Times, New Delhi Edition, 21 January 2008
[1070] Speech by Prime Minister at the second meeting of the National Committee on Climate Change http://pmindia.nic.in/speech/content.asp?id=561 Date of Access: 20 December 2007.
[1071] India: Addressing Energy Security and Climate Change, Ministry of Environment and Forests, (New Delhi), October 2007. http://envfor.nic.in/divisions/ccd/Addressing_CC_09-10-07.pdf Date of Access: 1 December 2007.
[1072] *Rlys send out green signal, set to join climate warriors,* The Hindustan Times, New Delhi Edition, 7 November 2007
[1073] *PCL signs energy efficient pact with pvt cos,* The Hindustan Times, New Delhi Edition, 13 May 2008
[1074] National CDM Authority of India, http://cdmindia.nic.in/cdm_india.htm Date of Access: 2 January 2007

with industrial development, potentially generating $10billion by 2012[1075]. While CDM is not direct government action, India acts in a substantial manner to facilitate the creation and running of these projects, which in the examples above are all in state-run organisations. In this light, CDM forms the major thrust of current implementation of this commitment.

There has also been progress at the international scale on working to stabilise India's emissions. In April 2008 the Ministry of Science and Technology signed a Memorandum of Understanding with HSBC Bank[1076]. The Memorandum creates the Earth Sciences Forum, which is designed to bring together various stakeholders from academic, policy, and civil society to spread awareness of how to cuts emissions at the household and company scale[1077]. As well as corporations, India has collaborated with other States to tackle GHG emissions. India has formed an agreement with China on the Bali Roadmap[1078]; the agreement creates international support for the cutting of global emissions while maintaining national differentiation. More academically, there have also been talks to establish a UK-India research centre as part of the Prime Minister-commissioned impact assessment[1079]. Such collaboration does put India in compliance with its UNFCCC commitment to share information on 'best practice', and to facilitate regional cooperation[1080]; however, as with domestic action, this public and proactive rhetoric from India has amounted to very little policy.

Internationally, India has been a central figure in planning for future compliance periods. Among the Asia-Pacific nations, it has pushed for collaboration among the Association of Southeast Asian Nations (ASEAN) members, as well as the USA. At the ASEAN summit in Singapore on the 18th November 2007, Manmohan Singh argued for the creation of an India-ASEAN Network on Climate Change that could act as a forum for expertise[1081]. This was followed by an Indian-hosted Asia-Pacific summit on technology cooperation in CDM in the region[1082].

India's compliance with the commitment to stabilise GHG emissions cannot be considered full for two reasons. Most simply, much of the action to date is rhetorical, focusing on bureaucratic foundation-building. Secondly—and more fundamentally—India has no intention of working towards this

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[1075] Figures according to business information company Dun & Bradstreet (D&B) quoted in *Carbon credits to generate $10-bn revenue by 2012*, The Indian Express, New Delhi Edition, 15 February 2008

[1076] *Centre, HSBC join hands to deal with climate change,* The Indian Express, New Delhi Edition, 22 April 2008

[1077] *Centre, HSBC join hands to deal with climate change,* The Indian Express, New Delhi Edition, 22 April 2008

[1078] *PM's China visit: A testimony to the importance attached to Sino-Indian bilateral ties, says Menon,* The Hindustan Times, New Delhi Edition, 11 January 2008

[1079] UK *ready to collaborate on green research centre: King,* The Hindustan Times, New Delhi Edition, 21 November 2007

[1080] UNFCCC. http://unfccc.int/essential_background/convention/items/2627.php Date of Access: 5 December 2007

[1081] *PM favours integrated Asian Market,* The Hindustan Times, New Delhi Edition, 21 November 2007

[1082] *New Delhi to host six-nation climate meet,* The Hindustan Times, New Delhi Edition, 11 October 2007

commitment itself; instead, its efforts have been to stabilise *global* GHG concentration through propagating the 'common but differentiated' argument. Based on this analysis, India is awarded zero.

Analyst: Simon Billett

Addendum:

- On 30 June 2008, India unveiled its National Climate Change Plan which identifies harnessing renewable energy, such as solar power, and energy efficiency as central to India's fight against global warming. A climate change fund will be set up to research "green" technologies. Yet the plan refuses to commit to any emissions targets.[1083]

India	**Score**
2B. Promote Less Emission-Intensive Energy Production	**0**

Since the Heiligendamm Summit in June 2007, the Indian government has continued to advocate more support of renewable energy, as outlined in the government's 11th Five Year Plan.[1084] The Indian government's commitment is comprised mainly of financial incentives to the private sector for research, development, design and production of renewable energies, with little done to improve of efficiencies of current fossil fuels—this is left primarily in the hands of the private sector.

75 % of India's electricity is generated from coal[1085] and 85 % of coal is produced by one solely government-owned company, Coal India Ltd. The government has only made limited efforts to increase the efficiency of coal production with other government owned companies Bharat Heavy Electricals and Andhra Pradesh Power Generation signing an agreement to set up 125MW clean coal power plant[1086], and to set up a watchdog for the coal industry, as announced in India's national budget for 2008-09 [1087]. Dr Suraj Seth, Minister of Coal, outlined the Information Sharing on Coal Processing Technologies between India and the United States stating that the US State

[1083] India Focuses on Renewables in New Climate Plan, Reuters, (India), 1 July 2008. Date of Access: 3 July 2008. http://www.planetark.com/dailynewsstory.cfm?newsid=49094&newsdate=01-Jul-2008.
[1084] Eleventh Five Year Plan (2007-2012), Planning Commission, Government of India (India). Date of Access: 16 January 2008. http://planningcommission.nic.in/plans/planrel/11thf.htm
[1085] Interview with Partha Bhattacharya of Coal India Limited, e-gov,(India), 06 March 2008, Date of Acess: 2 June 2008, http://www.egovonline.net/interview/interview-details.asp?interviewid=374
[1086] India to build clean coal plant in Vijaywada, Cleantech Group LLC (India), 13 May 2008, Date of Acess: 2 June 2008 http://media.cleantech.com/2832/india-to-build-clean-coal-plant-in-vijaywada
[1087] Mohd, N. (2008) Coal watchdog welcome, but look at energy holistically: experts; India eNews (India), 5 March 2008, Date of Acess: 2 June 2008 http://www.indiaenews.com/business/20080305/102096.htm

Department has given a grant of $1 million to increase energy utilisation of coal and reduce pollutants with final results expected in 2009. [1088]

India is continuing to increase the contribution of renewable power to the total energy mix. However the Integrated Energy Policy Report (IEPR) prepared by the Planning Commission projected that renewable energy may only account for 5-6 % of India's total energy mix by 2031-32. [1089] The government has outlined a renewable purchase obligation (RPO), which is a state dependent programme outlining compulsory use of a minimum quantity of renewable energy.[1090] However, it is not compulsory for states to adopt the policy.

Most of renewable energy produced is supplied as electricity. Grid-interactive renewable power plants reached an installed capacity of about 11GW as of 30 September 2007, with over half of this coming from wind power (7,660MW). The Ministry for New and Renewable Energy has envisioned an additional 14,500MW by 2012 with 10,500MW from wind[1091]. By 2032 the aim is for 80,000MW (30,000MW from wind) through promotion of private investment.[1092,1093,1094] Large hydro-electric power contributes an additional 34,000MW, bringing the contribution of total renewable energy to about 15 % of India's electricity needs, according to the Minister for New and Renewable Energy, Shri Vilas Muttamvar, when he addressed the International Bio-Fuels Conference, Brussels, on 5 July 2007.[1095]

The Ministry for New and Renewable Energy has proposed Rs. 104.6 billion for the development of renewable energy during the period 2007- 2012, of

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[1088] Presentation by Coal Mining Task Force, by Dr. Suraj Seth, Ministry of Coal, India at the Asia-Pacific Partnership on Clean Development and Climate, Second Minsterial Meeting (New Delhi, India), 15 October 2007. Date of Access: 28 December 2007. http://www.asiapacificpartnership.org/2ndministerialpresentations.htm

[1089] Development of New & Renewable Energy to Get Rs. 10,460 Crore for Eleventh Plan Period, Ministry for New and Renewable Energy (India), 24 November 2007. Date of Access: 28 December 2007. http://mnes.nic.in/press-releases/press-release-24112007.pdf

[1090] Policy for Minimum Use of renewable Energy, 28 April, 2008, Ministry of New and Renewable Energy (India),28 April, 2008, Date of Acess: 2 June 2008 http://mnes.nic.in/press-releases/press-release-28042008-2.pdf.

[1091] 14000 MW Target from Grid Interactive Renewable During 11th Plan, Wind Energy Potential in Uttarakhand, Ministry of New and Renewable Energy (India), 28 April 2008, Date of Acess: 2 June 2008, http://mnes.nic.in/press-releases/press-release-28042008-4.pdf.

[1092] Capacity Addition of 30,000 MW from Wind by 2032, Ministry of New and Renewable Energy (India), 28 April 2008, Date of Acess: 2 June 2008, http://mnes.nic.in/press-releases/press-release-28042008-1.pdf,

[1093] "India's renewable energy capacity to grow eight-fold' India eNews (India), 22 November 2007, Date of Acess: 2 June 2008 http://www.indiaenews.com/business/20071122/82111.htm

[1094] Grid Power Plants Generating Power from Renewables, Ministry of New and Renewable Energy (India), 19 November 2007. Date of Access: 28 December 2007. http://mnes.nic.in/press-releases/press-release-19112007-2.pdf

[1095] India's Bio-Fuel Programme to be Developed on Public Private Partnerships, Shri Vilas Muttemvar Addresses International Bio-Fuels Conference at Brussels, Ministry of New and Renewable Energy (India), 6 July 2007. Date of Access: 28 December 2007. http://mnes.nic.in/press-releases/press-release-06072007.pdf

which Rs. 15 billion is for research and design.[1096] This is greater than the expenditure of Rs. 726 million during the period from 2002-07[1097]. The Ministry for New and Renewable Energy has spent Rs. 410 million on research for alternative fuel during the last three years.[1098] The Indian Renewable Energy Development Agency (IREDA) and Power Finance Corg (PFC) have signed a MoU to facilitate financing of renewable energy[1099]

India has done a great deal to set up bilateral cooperation with donor countries on climate projects. On 28 June 2007, India signed a Memorandum of Understanding (MoU) with Japan to increase efficiency in energy intensive industries in return for a $10 billion investment by Japan into the Delhi-Mumbai Industrial Corridor by 2012[1100]. In addition, on 9 October 2007, India signed a second MoU with Iceland for the development of geothermal and hydrogen fuel cells and wind energy technologies[1101]. Also, the Confederation of Indian Industry (CII) announced that India and Israel Industries would collaborate on development of renewable energy technologies[1102]. In October 2007, at the Asia-Pacific Partnership on Clean Development and Climate conference in New Delhi, India joined about 20 projects under the Renewable Energy and Distribution Generation Task Force[1103]. However, India recently came under criticism at the recent United Nations Climate Change Conference in Bali 3-14 December 2007 due to its lack of commitment to discussions. Prodipto Ghosh, senior member of the Indian government delegation, responded by referring to the FICCI (Federation of Indian Chambers of Commerce and Industry) Task Force, which outlines around 40 acts and polices and 60 schemes for reduction of

[1096] India Mulls Rs 1,500 Crore R&D in Renewable Energy, iGovernment (India) 10 December 2007. Date of Access: 28 December 2007. http://www.igovernment.in/site/india-mulls-rs-1500-crore-rd-in-renewable-energy

[1097] More Than Rs.72 Crores on R&D in New Renewable Energy, Ministry of New and Renewable Energy (India), 7 December 2007. Date of Access:28 December 2007. http://mnes.nic.in/press-releases/press-release-07122007-1.pdf

[1098] Rs 41 Crore Spent on Research on Alternative Fuel During Last Three Years, Ministry of New and Renewable Energy (India), 25 April 2008, Date of Acess: 2 June 2008, http://mnes.nic.in/press-releases/press-release-25042008-1.pdf

[1099] Two Government Agencies to fund renewable energy projects, India eNews (India), 25 March 2008, Date of Acess: 2 June 2008, http://www.indiaenews.com/business/20080325/106574.htm

[1100] India, Japan Sign Pact on Energy Conservation , Domain-b.com, The Information Company Pvt. Ltd. (India), 2 July 2007. Date of Access: 28 December 2007.http://www.domainb.com/economy/trade/20070702_conservation.html

[1101] India, Iceland sign MoU for Renewable Energy Cooperation, The Economic Times (India), 9 October 2007. Date of Access: 28 December 2007. http://economictimes.indiatimes.com/News_by_Industry/India_Iceland_sign_MoU_for_renewable_nergy_cooperation/articleshow/2443454.cms

[1102] India, Israel to collaborate on renewable Energy, Thaindian News (Thailand), 9 April 2008, Date of Acess: 2 June 2008 http://www.thaindian.com/newsportal/enviornment/india-israel-to-collaborate-on-renewable-energy_10036220.html

[1103] India's Participation in Asia-Pacific Partnership on Clean Development and Climate(APPCDC), Ministry of New and Renewable Energy, 11 November 2007. Date of Access: 28December 2007. http://mnes.nic.in/press-releases/press-release-11112007.pdf

greenhouse gases, increasing energy efficiency, renewable energy and aforestation[1104].

India has given, and appears to be continuing to give, financial incentives for the establishment of renewable energy to provide power to remote villages under the schemes "Village Energy Security Programme", "Remote Village Electrification Programme", and "Biomass Gasifier Programme."[1105] This comes in the form of biopower, small hydro and solar power. In April 2007 The Ministry for New and Renewable Energy commissioned the programme "Biomass Energy and Co-generations (non-bagasse) in Industry" to continue into 2008[1106,1107] and proposed an additional 2,100MW from biopower up to 2012.[1108] The Ministry has also proposed a target of 1,400MW from small hydro power projects,[1109] and has sanctioned a demonstration project to setup a 3.75MW Mini Tidal Power Project in Sunderbans Island, West Bengal, of which the total cost of Rs. 480,000,000 would be provided 90 % by ministry and 10 % by state government[1110,1111].

India has been committed to establishing solar power in the country with the main emphasis on powering rural villages. The government's commitment has been through financial incentives—for example to manufacturers—and subsidies to encourage the utilization of solar energy systems[1112]. The estimated capital cost of setting up a Solar Power Plant is in the range of Rs.160 million to Rs. 200 million per MW. The cost of generation is around Rs.12 to Rs.15 per unit, depending upon technology efficiency etc. **[1113]**. The government will give financial support for 33 grid-interactive solar photovoltaic power plants (capacity of 2.12MW) and Rs. 1.45 million for

[1104] 806 India not in forefront at Bali: UN body chief, Yahoo India News (India), 7 December 2007. Date of Access: 3 January 2007. http://in.news.yahoo.com/071207/43/6o63b.html
[1105] Remote Village Electrification Programme, Ministry of New and Renewable Energy (India), 11 October 2007. Date of Access: 30 December 2007. http://mnes.nic.in/pressreleases/press-release-11102007.pdf
[1106] F. No. 2/2/2007-BM-UICA, Sub:-Sanction of Continuation of the Programme on "Biomass Energy and Co-generating (non-bagasse) in Industry" during 2007-2008, Ministry of New and Renewable Energy (India), 24 April 2007. Date of Access: 28 April 2007. http://mnes.nic.in/adm-approvals/aa-biomass-energycogen.pdf
[1107] Bio-Mass Projects, Ministry of New and Renewable Energy (India), 3 December 2007: Date of Access: 28 December 2007. http://mnes.nic.in/press-releases/press-release-0312007-2.pdf
[1108] About 17 Million Mandays Per Annum to be Generated During Eleventh Plan Period Through Bio-Mass Projects, Ministry of New and Renewable Energy (India), 7 September 2007. Date of Access: 30 December 2007. http://mnes.nic.in/press-releases/press-release-07092007-5.pdf
[1109] 893 Small Hydro Power Projects Completed In Jammu and Kashmir, Ministry of New and Renewable Energy (India), 7 September 2007. Date of Access: 28 December 2007. http://mnes.nic.in/press-releases/press-release-07092007-4.pdf
[1110] Energy from Tidal Waves, Ministry of New and Renewable Energy (India), 25 April 2008, Date of Acess: 2 June 2008 http://mnes.nic.in/press-releases/press-release-25042008.pdf
[1111] Durgaduani Tidal Power Project in West Bengal, Ministry of New and Renewable Energy (India), 7 December 2007. Date of Access: 28 December 2007. http://mnes.nic.in/pressreleases/press-release-07122007-3.pdf
[1112] Cost of 1 MW Solar Power Plant Between Rs. 16 to Rs. 20 crore, Ministry of New and Renewable Energy (India), 21 April 2008, Date of Acess: 2 June 2008 http://mnes.nic.in/press-releases/press-release-21042008-2.pdf
[1113] Solar Energy Generation, Ministry of New andRenewable Energy (India), 25 April 2008, Date of Acess: 2 June 2008 http://mnes.nic.in/press-releases/press-release-25042008-3.pdf

decentralised off-grid solar photovoltaic systems (capacity of ~125MW)[1114]. The Ministry for New and Renewable Energy has considered 50MW solar power plants for the 11th Five Year Plan period and will provide incentives for grid-interactive solar power generation for the first time, of the amount of Rs. 12KW/hr in solar photovoltaic and Rs. 10KW/hr for solar thermal power[1115]. During 2007-08, through the remote village electrification Programme 750 solar home lighting systems, 50 solar street lighting systems and 500 solar lanterns have been allocated to the State of Assam[1116] and 79 villages electrified by solar power in Chattisgarh[1117]. The government is also planning to add another 10million m2 of solar collector areas for hot water on top of the current 2 million m2 by the next 5 years. The Ministry of New and Renewable Energy also provides Central Financial Assistance of up to 90 % of the cost of solar lighting systems and has already provided support to 190 villages in the region of Maharashtra[1118].

India is also committed to increasing wind power and is currently the third top producer of wind energy in the world[1119]. In contrast to these supportive schemes for alternative energies, there has been minimal effort to improve coal efficiency. India currently operates coal plants under sub-critical steam conditions and needs to move to supercritical conditions to raise efficiency[1120]. The government's focus is for private industry to develop new power stations to meet the ever increasing energy demands[1121]. A supercritical station at Seepat (2x660MWe) is under construction and is due to be completed in early 2009. A further 36,800MW supercritical plant is to be commissioned during the 11th (2007-2011) and 12th five year plans (2012-2016).

These observations demonstrate that India is committed to increasing efficiency of energy production and developing renewable energy, despite its resistance to binding GHG emission targets. India has attended numerous international meetings and formed international collaborations to discuss cleaner energy solutions. The government has proposed a great deal of

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[1114] India to conduct mega solar project demo, iGovernment (India), 31 March 2008, Date of Access: 2 June 2008, http://economictimes.indiatimes.com/News_by_Industry/India_Iceland_sign_MoU_for_renewable_energy_cooperation/articleshow/2443454.cms

[1115] Solar Energy Generation, Ministry of New andRenewable Energy (India), 25 April 2008, Date of Acess: 2 June 2008 http://mnes.nic.in/press-releases/press-release-25042008-3.pdf

[1116] Funds for Solar Energy in Assam, Ministry of New and Renewable Energy (India), 1 April 2008, Date of Acess: 2 June 2008 http://mnes.nic.in/press-releases/press-release-01042008-2.pdf

[1117] Rural Electrification in Chhattisgarh, Ministry of New and Renewable Energy (India), 21 April 2008, Date of Acess: 2 June 2008. http://mnes.nic.in/press-releases/press-release-21042008-1.pdf.

[1118] Beneficiary Villages and Hamlets Where Solar Light Systems, Ministry of New and Renewable Energy (India), 26 November 2007. Date of Access: 28 December 2007. http://mnes.nic.in/press-releases/press-release-26112007-1.pdf

[1119] India's wind power increase world's third largest, Daily News and Analysis (India), 9 November 2007. Date of Access: 3 January 2007. http://www.dnaindia.com/report.asp?newsid=1138185

[1120] India, World Coal Institute (London), July 2006. Date of Access: 28 December 2007. http://www.worldcoal.org/pages/content/index.asp?PageID=402

[1121] Private Power Programme for India Gets Promising Start, T.C. Malhotra, Engineering News-Record (New York), 13 April 2007. Date of Access: 28 December 2007. http://enr.construction.com/news/powerIndus/archives/070413.asp

financial aid towards renewable energy development, with a focus on supporting remote villages without current access to power as opposed to replacing existing sources of energy. Yet, due to India's dependence on coal as an energy source, little has been done to encourage clean coal technologies and seems to be mainly in the hands of private developers. As a result, India is only found to be in partial compliance with this commitment.

Analyst: Jodi Young

India	Score
2C. Promote Less Emission-Intensive Energy Consumption	**0**

Demand for energy is expected to rise as India's economic growth continues to facilitate rising consumption of energy-intensive goods and services.[1122] In addition, at the Bali Conference in December, India noted that any efforts it makes in emissions reductions and promoting less intensive energy use is dependent on how developed countries facilitate technology transfers and financing.[1123] Along these claims, the government's strategy to promote less emission-intensive energy consumption includes continuation of sectoral-based programme agendas, region-specific programmes, and more nationally coordinated policies such as the government's proposed climate change policy for the coming years. The latter, India's Climate Change Roadmap, yet to be officially released, is reported to have eight mission areas that aim to increase India's energy security while also "decarbonising" its economy through the promotion of renewable energy systems in both urban and rural areas.[1124] A specific mission is said to address energy efficiency through waste management efforts, development standards, and public transport systems.[1125] Other efforts to promote less emission-intensive energy consumption are

[1122] IEA raises India's 2008 oil demand outlook on transport needs, The Economic Times, (Singapore), 16 January 2008. Date of Access: 19 January 2008. http://economictimes.indiatimes.com/Economy/IEA_raises_Indias_2008_oil_demand/articleshow/2705929.cms

[1123] Roadmap to fight climate change, The Hindu (Bali), 16 December 2007. Date of Access: 22 December 2007. http://www.thehindu.com/2007/12/16/stories/2007121650670100.htm Prime Minister Addresses 95th Science Congress, (New Delhi), 3 January 2008. Date of Access: 19 January 2008. http://pib.nic.in/release/release.asp?relid=34357

[1124] India to focus on solar energy, The Times of India (New Delhi), 31 May 2008. Date of Access: 31 May 2008. http://timesofindia.indiatimes.com/India_to_focus_on_solar_energy/rssarticleshow/3087455.cms

[1125] India to focus on solar energy, The Times of India (New Delhi), 31 May 2008. Date of Access: 31 May 2008. http://timesofindia.indiatimes.com/India_to_focus_on_solar_energy/rssarticleshow/3087455.cms

concentrated in specific sectors such as transport and household energy consumption.

A report by the Ministry of Environment and Forests, Ministry of Power, and Bureau of Energy Efficiency highlights India's efforts to promote energy efficient lifestyles to its growing population with projects such as energy labelling, educational outreach, and continued engagement in the Clean Development Mechanism (CDM).[1126] Various international collaborative opportunities have been sought by the Indian government, including partnerships in the energy sector with Japan and Germany.[1127] The Bureau of Energy Efficiency (BEE) continues to implement its appliance energy labels scheme for refrigerators, air conditioners, and fluorescent lamps launched in 2006 with about two thirds of such appliances covered under the labelling programme.[1128] An Energy Conservation Building Code was also launched in 2007 establishing a national rating system for green buildings with a primary focus on incorporating renewable energy and less intensive energy use in building design.[1129] Both programmes were highlighted during India's National Energy Conservation Day by President Pratibha Devisingh Patil, emphasizing that "efficient use of energy is itself a mechanism for reducing global warming."[1130] In addition, programmes such as the "Bachat Lamp Yojana" campaign providing compact fluorescent lamps at the price of normal bulbs, and rural electrification initiatives that utilize energy efficient technology and renewable energy have been promoted by BEE to tackle energy security, climate change, and poverty reduction goals.[1131] The labelling programme, however, has yet to impact consumer changes with owners and BEE suggesting that awareness of labels and their purpose needs more

[1126] India: Addressing Energy Security and Climate Change, Ministry of Environment and Forests, (New Delhi), October 2007. Date of Access: 1 December 2007. http://envfor.nic.in/divisions/ccd/Addressing_CC_09-10-07.pdf
[1127] Joint Statement by the Republic of India and Japan on the enhancement of cooperation on environmental protection and energy security, (New Delhi), 22 August 2007. Date of Access: 17 December 2007. http://pmindia.nic.in/prelease/pcontent.asp?id=635
Indo-German Symposium on Energy Efficiency, Ministry of Power, (New Delhi), 16 May 2008. Date of Access: 31 May 2008. http://pib.nic.in/release/release.asp?relid=38913
[1128] India: Addressing Energy Security and Climate Change, Ministry of Environment and Forests, (New Delhi), October 2007. Date of Access: 1 December 2007. http://envfor.nic.in/divisions/ccd/Addressing_CC_09-10-07.pdf
[1129] India: Addressing Energy Security and Climate Change, Ministry of Environment and Forests, (New Delhi), October 2007. Date of Access: 1 December 2007. http://envfor.nic.in/divisions/ccd/Addressing_CC_09-10-07.pdf
National Rating System for Green Buildings, Ministry of New and Renewable Energy (New Delhi), 19 November 2007. Date of Access: 20 December 2007. http://mnes.nic.in/press-releases/press-release-19112007-3.pdf
[1130] National Energy Conservation Day, Ministry of Power, (New Delhi), 14 December 2007. Date of Access: 15 December 2007. http://powermin.nic.in/JSP_SERVLETS/jsp/newsdis.jsp?id=358
President Speech on National Energy Conservation Day, (New Delhi), 14 December 2007. Date of Access: 17 December 2007. http://presidentofindia.nic.in/sp141207.html
[1131] Prime Minister's Opening Remarks at the meeting of the Council on Climate Change, (New Delhi), 13 July 2007. Date of Access: 17 December 2007. http://pmindia.nic.in/speech/content.asp?id=561

work.[1132] Additionally, such energy initiatives face financial constraints for India's 4.5 million medium and small business enterprises to adopt and promote energy efficient businesses and lifestyles limiting India's progress in promoting less intensive energy usage at the industrial and household level.[1133]

The public transport sector, according Prime Minister Singh, is "an area that needs immediate action," and has requested the upcoming plan to address this sector explicitly.[1134] Notably, there are concerns over India's rising ownership of private vehicles, such as the Tata Nano, may counter efforts just by the sheer scale of increase in numbers.[1135] More localized efforts have been launched such as the Bus Rapid Transport (BRT) program for the city of Delhi to promote efficient bus transport systems and easing traffic congestion and pollution.[1136] In anticipation of a seven-fold increase in the number of vehicles on the road, the government has granted the Bureau of Energy Efficiency (BEE) and the Petroleum Conservation Research Association (PCRA) the task of setting mandatory fuel efficiency targets within two years.[1137] BEE and PCRA have noted their intention to work the industry to formulate gradual increases in standards to perhaps reach a desired 45 % improvement in average fuel efficiency by 2012 and incentivize such a move.[1138] The Society of Indian Automobile Manufacturers have also advocated their role in promoting less intensive energy consumption in the transport sector through fuel efficiency labels on cars for consumers and fleet modernization programmes,

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[1132] Small Scale Businesses Forestall a Green India, The Washington Post, (Faridabad), 27 December 2007. Date of Access: 27 December 2007. http://www.washingtonpost.com/wp-dyn/content/article/2007/12/26/AR2007122602004.html?nav=rss_business

[1133] Small Scale Businesses Forestall a Green India, The Washington Post, (Faridabad), 27 December 2007. Date of Access: 27 December 2007. http://www.washingtonpost.com/wp-dyn/content/article/2007/12/26/AR2007122602004.html?nav=rss_business

[1134] Prime Minister's Inaugural Address at the Delhi Sustainable Development Summit, (New Delhi), 07 February 2008. Date of Access: May 3 2008.
http://pib.nic.in/release/release.asp?relid=35196

[1135] New CSE study puts a speed breaker on low-cost small cars, (New Delhi), 3 October 2007. Date of Access: 19 January 2008.
http://www.cseindia.org/aboutus/press_releases/press_20071003.htm
'Flawed transport policy at fault,' Hindustan Times, (New Delhi), 11 January 2008. Date of Access: 19 January 2008.
http://www.hindustantimes.com/StoryPage/StoryPage.aspx?id=236e546f-d785-4e35-9004-6a38102e32b2&ParentID=c3af01f6-97f3-446a-a2aa-26e70d476815&&Headline='Flawed+transport+policy+at+fault

[1136] CSE Press Release "BRT is step in the right direction." (New Delhi), 25 April 2008, Date of Access: 4 May 2008.
http://www.cseindia.org/AboutUs/press_releases/press_20080425.htm

[1137] Cars face fuel efficiency test, The Times of India, (New Delhi), 16 August 2007. Date of Access: 19 January 2008. http://timesofindia.indiatimes.com/India/Cars_face_fuel-efficiency_test/articleshow/2283767.cms

[1138] Petroleum Conservation Research Association Seminar, (Chennai), 6 December 2007. Date of Access: 19 January 2008.
http://www.pcra.org/English/transport/chennaitransprot_sem.htm
Stress on improving energy efficiency on transport sector, The Hindu (Chennai), 7 December 2007. Date of Access: 19 January 2008.
http://www.hindu.com/2007/12/07/stories/2007120758991000.htm

emphasizing the need for the government to incentivize such changes.[1139] Recently, Prime Minister Singh requested the evaluation of policies that would promote hybrid vehicles through financial benefits.[1140] A continued debate between the implications of increasing private transport, the role and reliability of public transport systems, and future in alternative energy fuels and implementation of efforts has made the government's efforts in transportation sector notable but constrained. For example, studies have noted that the taxes imposed on public transport vehicles are higher than private vehicles, suggesting a counter effect to the government's promotion of less intensive energy usage.[1141] Other Government efforts such as the ethanol-blended petrol mandate in an earlier law has had limited impacts due to poor coordination of state taxes that have made it more costly to implement.[1142]

The financial and social constraints limiting India's actions in promoting less intensive energy consumption have also been highlighted in terms of intra-national equity concerns over the impacts on climate change—with India's poor bearing a large burden of the proposed impacts and regional conflicts over energy security.[1143] It is argued that little has been done to educate the rural population in terms of agricultural impacts and urban consumers about energy labelling schemes and incentives to promote less intensive energy products/activities.[1144] Industries have recognized the possible competitive advantage in the international market in pursuing less energy intensive technologies but have noted their difficulty in attaining such technologies cost effectively and thus support Science and Technology Minister Kapil Sibal's statement in giving "more time to industr[ies] to shift to a low carbon economy".[1145]

The Indian government's efforts through individual sector programs and coordinated policies suggest that there is a desire for reducing energy intensity of both production and consumption. The Plan is a recent step taken by the

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[1139] Society of Indian Automobile Manufacturers Pre Budget Memorandum (Annexure II). Date of Access: 19 January 2008. http://www.siamindia.com/scripts/pre-budget-memorandum4.aspx

[1140] Government mulls lower taxes for hybrid cars, The Economic Times, (New Delhi), 8 February 2008. Date of Access: 31 May 2008. http://economictimes.indiatimes.com/News/News_By_Industry/Auto/Automobiles/Government_mulls_lower_taxes_for_hybrid_cars/articleshow/2766720.cms

[1141] New CSE study puts a speed breaker on low-cost small cars, (New Delhi), 3 October 2007. Date of Access: 19 January 2008. http://www.cseindia.org/aboutus/press_releases/press_20071003.htm

[1142] Indian taxes a roadblock to biofuel drive, Reuters, (New Delhi), 14 January 2008. Date of Access: 19 January 2008. http://www.reuters.com/article/GlobalAgricultureandBiofuels08/idUSL1463347120080114

[1143] Hiding behind the poor, Green Peace India, 13 November 2007. Date of Access: 20 December 2007. http://www.greenpeace.org/india/press/reports/hiding-behind-the-poor

[1144] Small Scale Businesses Forestall a Green India, The Washington Post, (Faridabad), 27 December 2007. Date of Access: 27 December 2007. http://www.washingtonpost.com/wp-dyn/content/article/2007/12/26/AR2007122602004.html?nav=rss_business
Govt. must educate farmers about climate change: Pachauri, The Hindu, (New Delhi), 18 December 2007. Date of Access: 22 December 2007. http://www.hindu.com/thehindu/holnus/001200712181430.htm

[1145] Action plan on climate change by 2008: Sibal, The Hindu, (New Delhi), 19 December 2007. Date of Access: 20 December 2007. http://www.hindu.com/2007/12/19/stories/2007121956541400.htm

Indian government to coordinate a national effort towards climate change adaptation and likely to compliment other ongoing programs and policies. At the draft stage, this mission is proposed to have a "exceed and trade" market based mechanism to encourage industries to attain energy efficiency targets- an ambitious proposal if implemented that could potentially save 10,000 MW by 2012.[1146] However, the delayed release of the plan is said to be stalled due to a lack of political consensus over the use of standards and targets in specific energy programs.[1147] Thus, economic, political, and social constraints may limit execution of such efforts, and the paradoxical desire for India to gradually shift into a less carbon intensive society, while sustaining economic growth and reducing poverty is evident in the national and international level concerns over equitable and practical solutions. While, the proposed Climate Change Plan may provide explicit policy directions that could strengthen India's current approach to promote less emission-intensive energy consumption, at the time of this report, the Plan has yet to be officially unveiled and thus no explicit target to increase energy efficiency has been officially set by the Indian government in at least one of its economic sectors. As a result, India is found to be only in partial compliance with this commitment.

Analyst: Aparna Sridhar

[1146] Green forumula: Exceed to succeed, The Indian Express, 10 June 2008. Date of Access: 12 June 2008. http://www.indianexpress.com/story/320717.html

[1147] Climate policy in present form risk to India's rights, The Times of India, (New Delhi), 4 June 2008. Date of Access: 4 June 2008. http://timesofindia.indiatimes.com/India/Climate_policy_in_present_form_risk_to_Indias_rights/articleshow/3097725.cms

Mexico

Background

Mexico is currently the world's twelfth largest emitter of greenhouse gases (GHG), with annual emissions of 525.8 million tonnes per year of CO_2 equivalent.[1148] Long a significant petroleum-exporting country, "soaring internal rates of oil consumption" have led some analysts to project that Mexico could become a net importer of oil within the next five years.[1149] With this as backdrop, the current Mexican President Felipe Calderón has made environmental initiatives —with a particular focus on climate change— central to the framing of his administration's mandate.[1150]

In a joint statement released on 10 September 2007 by President Calderón and the President of India, Mexico stressed its commitment to working within the sphere of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto protocol, but highlighted its conviction that the solution to the climate change problem "should not prevent the right to economic and social development."[1151] Since the G8 Summit in Heiligendamm in June 2007, Mexico has undertaken an ambitious programme of climate change-related initiatives, while frequently expressing the urgent requirement to act in order to combat climate change, both domestically and internationally. Indeed, in December 2007 Mexico was rewarded for its efforts by GermanWatch's Climate-Change Performance Index, rising twelve spots from twelfth place in the previous year to a fourth place (out of 56 countries) in 2007.[1152] Mexico received similar praise for its "more cooperative posture" and "constructive spirit" displayed at the December 2007 United Nations conference on climate change in Bali.[1153,1154]

[1148] Latin America special report: Mexico's flimsy raft of climate change measures, ClimateChangeCorp, 16 August 2007. Date of Access: 28 December 2007. http://www.climatechangecorp.com/content.asp?ContentID=4897.
[1149] Clifford Krauss, Oil-rich nations tapping more of their own resources, International Herald Tribune, (Paris), 9 December 2007. Date of Access: 28 December 2007. http://www.iht.com/bin/printfriendly.php?id=8658965.
[1150] Alexis Madrigal, Bali Meeting Ends; Mexico Emerges as a Leader on Climate Change, Wired News, 14 December 2007. Date of Access: 28 December 2007. http://www.wired.com/print/science/planetearth/news/2007/12/mexico_climate.
[1151] Joint India-Mexico Statement, Office of the President of Mexico, (Mexico), 10 September 2007. Date of Access: 2 January 2008. http://www.presidencia.gob.mx/en/press/?contenido=31729.
[1152] Alexis Madrigal, Bali Meeting Ends; Mexico Emerges as a Leader on Climate Change, Wired News, 14 December 2007. Date of Access: 28 December 2007. http://www.wired.com/print/science/planetearth/news/2007/12/mexico_climate.
[1153] Kateri Jochum, Bali Talks Must End with Clear Mandate, says Climate Expert, *Deutsche Welle World*, (Bonn), 10 December 2007. Date of Access: 28 December 2007. http://www.dw-world.de/dw/article/0,2144,2996097,00.html.
[1154] Fabio Scarpella, Some Progress, but a Tough Week Remains at Bali Climate Conference, *World Politics Review*, 10 December 2007. Date of Access: 28 December 2007. http://www.worldpoliticsreview.com/articlePrint.aspx?ID=1424.

In practical terms, Mexico made headlines for its tree-planting campaign designed to combat deforestation, and stabilize GHG concentrations.[1155] In addition, Mexico has been a strong promoter of market-based approaches to fighting climate change, particularly in the energy sector.[1156] However, while the Mexican government has stressed the importance of promoting less emission-intensive energy consumption throughout the past year, few major initiatives have been unveiled since July 2007.

On balance, the Calderón administration has made noteworthy strides toward meeting the climate change commitments made by the Outreach Five countries at the Heiligendamm Summit. Nonetheless, as Mexico has yet to establish firm or binding targets for emissions reductions, and has made only few steps to promote increases in more efficient energy consumption, overall Mexico has only achieved partial compliance with two of its climate change commitments from the G8 Heiligendamm Summit.

Team Leader and Analyst: Stephen Brosha

Mexico	**Score**
2A. Stabilise GHG Concentrations	**0**

Mexico has demonstrated partial compliance to its commitment to stabilize GHG concentrations made at the Heiligendamm Summit in 2007. The Calderón administration has frequently reiterated its acceptance of the notion spelled out in Article 2 of the UNFCCC, that urgent action is necessary "to prevent dangerous anthropogenic interference with the climate system."[1157] Over the course of the year, the Mexican government has instituted several initiatives designed to aid the country in stabilizing GHG concentrations, but has not yet declared any firm targets. Furthermore, a number of the government's claims about stabilizing GHG concentrations through reforestation, and increased reliance on renewable sources of energy have come under considerable scrutiny by environmental organizations.

In several speeches and press releases since June 2007, both Mexican President Felipe Calderón and Juan Rafael Elvira Quesada, Minister of the Department of Environment and Natural Resources (SEMARNAT), have reaffirmed the government's position on the urgency of climate change. In his speech on 8 June 2007 at the G8 Summit, Calderón stated that "the basic scientific debate appears to have ended: climate change is real, measurable,

[1155] President Calderón at 250 Millionth Tree Planting Event [Speech], Office of the President of Mexico, (Mexico), 23 December 2007. Date of Access: 2 January 2008. http://www.presidencia.gob.mx/en/press/?contenido=33132.
[1156] Buscan Países Mesoamericanos Consolidar Un Proceso Fuerte Y Efectivo, A Nivel Mundial, Contra El Cambio Climático [Press Release 193/07], SEMARNAT, (Mexico), 13 December 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/boletindeprensa/Pages/bol-193.aspx.
[1157] United Nations Framework Convention on Climate Change, Article 2. 1992. Date of Access: 21 January 2008. http://unfccc.int/resource/docs/convkp/conveng.pdf.

and constitutes one of the greatest challenges facing mankind."[1158] Quesada, on 6 November 2007 similarly framed the issue of fighting climate change as a question of "how we can save the human species and the planet,"[1159] and linked climate change to Mexico's national security.[1160] Further, the Mexican government has continually reaffirmed its commitment to follow the principles of the UNFCCC and its Kyoto Protocol, to which it is a non-Annex 1 party.[1161]

While Mexico has yet to tie itself to binding targets for emissions reductions, the Mexican government aspires to reduce Mexico's overall carbon emissions equivalent by 126 million tonnes (24 % of total emissions) by 2014.[1162] While Ned Hulme of the Centre for Clean Air Policy believes that Mexico's climate change initiatives will likely reach a more modest emissions reduction of 110 million tonnes by 2020,[1163] such a reduction would, by either estimate, far exceed the target of a 20 % reduction by 2050 asked of developing countries by the 2007 United Nations Human Development Report.[1164]

In combating climate change, the Calderón administration has chosen to focus particularly on market-driven solutions, working through international frameworks. [1165] More specifically, as of 30 June 2008, Mexico had 110 projects —up from 91 in July 2007— registered through the United Nations Clean Development Mechanism (CDM) programme, ranking Mexico fourth globally in terms of the number of such projects.[1166] In its utilization of CDM, Mexico has been particularly successful in obtaining technology transfer as a component of funded projects. While technology transfer is incorporated in

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[1158] President Calderón's Intervention at Group of 8 Summit [Speech], Office of the President of Mexico, (Mexico), 8 June 2007. Date of Access: 2 January 2008. http://www.presidencia.gob.mx/en/press/?contenido=30551.
[1159] Palabras del Secretario de Medio Ambiente y Recursos Naturales, Ing. Juan Rafael Elvira Quesada, durante la entrega de reconocimientos del programa voluntario fe contabilidad y reporte de gases de efecto invernadero en México [Speech], SEMARNAT, (Mexico), 6 November 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/discursoyentrevistas/Pages/plt071106.aspx.
[1160] El medio ambiente, asunto de seguridad nacional: Elvira Quesada [Press Release 129/07], SEMARNAT, (Mexico), 4 September 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/boletindeprensa/Pages/bol07-131.aspx.
[1161] Joint India-Mexico Statement, Office of the President of Mexico, (Mexico), 10 September 2007. Date of Access: 2 January 2008. http://www.presidencia.gob.mx/en/press/?contenido=31729.
[1162] Latin America special report: Mexico's flimsy raft of climate change measures, ClimateChangeCorp, 16 August 2007. Date of Access: 28 December 2007. http://www.climatechangecorp.com/content.asp?ContentID=4897.
[1163] Alexis Madrigal, Bali Meeting Ends; Mexico Emerges as a Leader on Climate Change, Wired News, 14 December 2007. Date of Access: 28 December 2007. http://www.wired.com/print/science/planetearth/news/2007/12/mexico_climate.
[1164] Fighting Climate Change: Human Solidarity in a divided world, Human Development Report 2007, United Nations Development Programme, (New York), p. 15, 2007. Date of Access: 10 June 2008. http://hdr.undp.org/en/reports/global/hdr2007-2008/.
[1165] Buscan Países Mesoamericanos Consolidar Un Proceso Fuerte Y Efectivo, A Nivel Mundial, Contra El Cambio Climático [Press Release 193/07], SEMARNAT, (Mexico), 13 December 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/boletindeprensa/Pages/bol-193.aspx.
[1166] United Nations Framework Convention on Climate Change, Clean Development Mechanism Project Search, 30 June 2008. Date of Access: 30 June 2008. http://cdm.unfccc.int/Projects/projsearch.html.

less than half of CDM projects worldwide, 68 per cent of Mexico's projects include technology transfer.[1167] Minister Quesada has stressed the importance of the private sector in Mexico's plans to combat climate change, particularly in areas of innovative technology.[1168]

In recent months, the Mexican government has secured significant funding to address climate change-related issues, including a World Bank loan of over US$500 million targeted specifically at reducing CO_2 emissions. In the official announcement of the loan, Alex van Trotsenburg, World Bank Director for Mexico and Colombia, praised Mexico for having "emerged as a global leader in the climate change arena."[1169] In addition to the World Bank loan, Mexico has secured a line of credit of €50 million from the European Investment bank to finance projects to "offset climate change."[1170]

With regard to the notion that developing and developed countries have "common but differentiated responsibilities" in the fight against climate change, Environment Minister Quesada stated in a speech on 6 November 2007, that "the inactions of other countries will not be a brake" to Mexico's actions.[1171] Rather, the Mexican government is taking the principle of common but differentiated responsibilities primarily to create international mechanisms to facilitate financial and technological assistance to developing countries, in order to improve climate change initiatives. To that effect, Mexico called for the creation of an international fund which would allow developing countries increased access to technology and research tools related to climate change mitigation and adaptation in November 2007.[1172] In international summits throughout the first half of 2008, Mexico continued to campaign for the creation of this fund, which appears to be coming to fruition under the auspices of the World Bank. The latter announced on 25 May 2008, its intention to raise at least US$5.5 billion to support developing countries in

[1167] CDM Produces Clean Tech Transfer, Carbon Positive, 10 April 2008. Date of Access: 9 June 2008. http://www.carbonpositive.net/viewarticle.aspx?articleID=1050.
[1168] Palabras del Secretario de Medio Ambiente y Recursos Naturales, Ing. Juan Rafael Elvira Quesada, durante la inauguración del XV Congreso Internacional Ambiental de Conieco-Enviro-Pro Cambio Climático-Vicsón Empresarial [Speech], SEMARNAT, (Mexico), 16 October 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/discursoyentrevistas/Pages/plt071016.aspx.
[1169] New Partnership Strategy Mexico-World Bank [Press Release 2008/260/LCR], World Bank, (Washnigton), 8 April 2008. Date of Access: 9 June 2008. http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21721588~menuPK:34463~pagePK:34370~piPK:34424~theSitePK:4607,00.html.
[1170] Fourth Mexico-European Union Summit Held in Lima, Peru, Mexidata, 19 May 2008. Date of Access: 9 June 2008. http://www.mexidata.info/id1841.html.
[1171] Palabras del Secretario de Medio Ambiente y Recursos Naturales, Ing. Juan Rafael Elvira Quesada, durante la entrega de reconocimientos del programa voluntario fe contabilidad y reporte de gases de efecto invernadero en México [Speech], SEMARNAT, (Mexico), 6 November 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/discursoyentrevistas/Pages/plt071106.aspx.
[1172] Palabras del Secretario de Medio Ambiente y Recursos Naturales, Ing. Juan Rafael Elvira Quesada, durante la entrega de reconocimientos del programa voluntario fe contabilidad y reporte de gases de efecto invernadero en México [Speech], SEMARNAT, (Mexico), 6 November 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/discursoyentrevistas/Pages/plt071106.aspx.

combating climate change.[1173] However, aside from calling upon developed countries to contribute, Mexico itself has not itself committed any funds or other support for the creation of such a fund. Nonetheless, as World Bank Latin America Chief Pamela Cox notes, Calderón has recently indicated that "his idea is to have all countries contribute to these funds, not just industrialized countries."[1174]

As part of its effort to stabilize GHG concentrations, Mexico (working within a broader campaign coordinated by the United Nations Environment Programme) embarked on a well-publicized campaign to plant 250 million trees in the country by the end of 2007, a target that was achieved in mid-December.[1175] The purpose behind this reforestation campaign was twofold: to contribute to the stabilization of GHG concentrations by creating more carbon sinks, and to mitigate and adapt to impacts of climate change by offering protection against flooding and drought.[1176] While the Mexican government's new "Pro-Tree Program" is designed to fund environmental services for forest and woodland management,[1177] Cecilia Navarro, spokesperson for Greenpeace in Mexico, criticized the reforestation program for being carried out "helter skelter" with trees "being planted anywhere" without due planning or long-term monitoring mechanisms in place.[1178] Héctor Margallón, head of the Greenpeace-Mexico Forest Campaign, reiterated such concerns in March, when he criticized the Mexican government for using the Pro-Tree program to "hide an alarming rate of deforestation."[1179] In addition to the tree-planting campaign, the Mexican government, on 30 August 2007, committed nearly 500 million pesos (US$45 million) to bolster natural resources management in the state of Nayarit, including over 80 million pesos directed toward sustainable forestry.[1180]

[1173] Yuji Okada and Shigeru Sato, World Bank to Raise $5.5 Billion for Climate Funds, Bloomberg, (Japan), 25 May 2008. Date of Access: 9 June 2008. http://www.bloomberg.com/apps/news?pid=20601087&sid=aufska1ueDVw&refer=home.
[1174] Quoted in Gerard Wynn, Interview: Emerging Economies Can Fund Climate Change – World Bank, Reuters, (London), 10 June 2008. Date of Access: 21 June 2008. http://www.reuters.com/article/latestCrisis/idUSL10767453.
[1175] President Calderón at 250 Millionth Tree Planting Event [Speech], Office of the President of Mexico, (Mexico), 23 December 2007. Date of Access: 2 January 2008. http://www.presidencia.gob.mx/en/press/?contenido=33132.
[1176] Marla Dickerson, Seeds of a dream yield holiday cheer, *Los Angeles Times*, 22 December 2007. Date of Access: 28 December 2007. http://www.latimes.com/business/la-fi-mextrees22dec22,1,4482943.story?coll=la-headlines-business.
[1177] Message from President Calderón at the End of the Private Meeting he Held with Mr. Albert Gore, Former Vice-President of the United States of America [Press Release], Office of the President of Mexico, (Mexico), 31 July 2007. Date of Access: 2 January 2008. http://www.presidencia.gob.mx/en/press/?contenido=31224.
[1178] Mexico leads the 'green' change, World News Australia, 24 December 2007. Date of Access: 28 December 2007. http://news.sbs.com.au/worldnewsaustralia/mexico_leads_the_39green39_charge_536793.
[1179] Diego Cevallos, Environment-Mexico: Record Reforestation, But Some Still Sceptical, Inter Press Service News Agency, (Mexico), 8 March 2008. Date of Access: 9 June 2008. http://www.ipsnews.net/news.asp?idnews=41516.
[1180] Firman SEMARNAT y el Gobierno de Nayarit convenio por más de 489 millones de pesos [Press Release 129/07], SEMARNAT, (Mexico), 30 August 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/boletindeprensa/Pages/bol07-129.aspx.

Along with initiatives in the forestry sector, Mexico has demonstrated a commitment to improving the country's ability to adapt to climate change through the protection and rehabilitation of at-risk ecosystems. After a meeting with former US Vice-President Al Gore, President Calderón announced on 31 July 2007, that his government would create an additional 3 million hectares of nature reserves in Mexico, an increase of almost 14 %.[1181] Additionally, SEMARNAT and other Mexican government ministries, such as the Secretariat of the Navy (Secretaría de Marina (SEMAR)), started negotiations in July 2007 to design a national program to protect reefs.[1182] On the political front, Mexican representatives to the December 2007 United Nations Climate Change Conference in Bali voiced requests to have references to adaptation included in the preamble to joint conference statements.[1183]

On the whole, Mexico has clearly articulated a commitment to stabilize GHG concentrations through an array of initiatives. However, in working toward the stated goals of the Outreach Five, Mexico's climate change plans have been somewhat lacking in focus. Nevertheless, the country's recent political and practical initiatives geared toward mitigation and adaptation, though far from complete, are a positive indication of Mexico's commitment to preventing dangerous consequences of anthropogenic climate change. This being said, Mexico has not set, or become subject to, binding targets on the reduction of GHG emissions. While it has recognized and reiterated the urgent requirement for action on behalf of developed and developing countries, since July 2007, Mexico has implemented few major policies, and has not allocated significant funding to reducing GHG concentrations. As a result, a rating of 0 is awarded for partial compliance with this commitment made at the Heiligendamm Summit.

Analyst: Stephen Brosha

Addendum:

- On 24 June 2008, SEMARNAT invited the public to take part in a public consultation about the contents of the Programa Especial de Cambio Climatico between 25 June and 16 July.[1184] This special programme builds on the Mexico's National Strategy of Climate Change

[1181] Message from President Calderón at the End of the Private Meeting he Held with Mr. Albert Gore, Former Vice-President of the United States of America [Press Release], Office of the President of Mexico, (Mexico), 31 July 2007. Date of Access: 2 January 2008. http://www.presidencia.gob.mx/en/press/?contenido=31224.
[1182] Diseñan Plan Nacional de Protección a los Arrecifes [Press Release 097/07], SEMARNAT, (Mexico), 11 July 2007. Date of Access: 2 January 2008. http://www.SEMARNAT.gob.mx/saladeprensa/boletindeprensa/Pages/bol07-097.aspx.
[1183] COP 13 and COP/MOP 3 Highlights: Saturday, 8 December 2007, *Earth Negotiations Bulletin*, International Institute for Sustainable Development, 10 December 2007. Date of Access: 28 December 2007. http://www.iisd.ca/vol12/enb12349e.html.
[1184] Podrá participar la ciudadanía en el contenido del Programa Especial de Cambio Climático, SEMARNAT, (Mexico), 24 June 2008. Date of Access: 3 July 2008. http://www.semarnat.gob.mx/saladeprensa/boletindeprensa/Pages/bol08-118.aspx.

(Estrategia Nacional de Cambio Climátic), which was presented by President Caldéron on 25 May 2007 and sets out Mexico's strategies and actions towards mitigating and adapting to climate change. While the strategy sets targets for economic sectors and issue areas, it does not set a national target for GHG emissions reductions.[1185]

Mexico	**Score**

2B. Promote Less Emission-Intensive Energy Production +1

The National Programme for Infrastructure (*Programa Nacional de Infraestructura 2007-2012*),[1186] presented by President Felipe Calderón on 12 July 2007, and the Sectoral Programme of Energy (*Programa Sectorial de Energia 2007-2012*), approved by government on 28 November 2007, form the backbone of Mexico's production of less emission intensive energy. More concretely, the *Programa Nacional de Infraestructura,* sets as goal that the share of renewable energy sources in electricity generation will increase from 22 % (in 2006) to 25 % by 2012.[1187]

With respect to clean energy production, the *Programa Sectorial de Energia* obliges Pemex, the state-owned oil and gas production-company, to a five % efficiency improvement target for its refineries.[1188] Furthermore, it develops strategies to enhance the efficiency of energy generation through cogeneration (Objective III.1),[1189] and outlines steps towards creating an investment environment conducive to the introduction of renewable sources of energies and biofuels (Objective III.2).[1190] Moreover, the programme dedicates a whole chapter to environmental and climate change issues which creates additional emphasis on the need to increasing the efficiency and sustainability of energy production, and to diversify primary sources of energy in Mexico (e.g. through

[1185] Programa Especial de Cambio Climático, Comisión Intersecretarial de Cambio Climático, (Mexico), 2008. Date of Access: 3 July 2008. http://www.semarnat.gob.mx/queessemarnat/consultaspublicas/Documents/pecc/PECC_VCP.pdf.
[1186] El Presidente Calderón en la Presentación del Programa Nacional de Infraestructura, Presidencia, (Mexico D.F.), 18 July 2008. Date of Access: 09 June 2008. http://www.presidencia.gob.mx/prensa/?contenido=31056.
[1187] Programa Nacional de Infraestructura 2007-2012, Presidencia, (Mexico D.F.), July 2007. Date of Access: 09 June 2008. http://www.infraestructura.gob.mx/pdf/ProgramaNacionalInfraestructura2007-2012.pdf.
[1188] Latin America special report: Mexico's flimsy raft of climate change measures, ClimateChangeCorp, 16 August 2007. Date of Access: 28 December 2007. http://www.climatechangecorp.com/content.asp?ContentID=4897.
[1189] Programa Sectorial de Energia 2007-2012, SENER, (Mexico D.F.), 28 November 2008. Date of Access: 09 June 2008. http://209.85.135.104/search?q=cache:S3QqivIspKgJ:www.sener.gob.mx/webSener/res/0/Programa%2520Sectorial%2520de%2520Energia%25202007-2012.pdf+programa+sectorial+de+energia+2007-2012&hl=de&ct=clnk&cd=2&gl=de.
[1190] Programa Sectorial de Energia 2007-2012, SENER, (Mexico D.F.), 28 November 2008. Date of Access: 09 June 2008. http://209.85.135.104/search?q=cache:S3QqivIspKgJ:www.sener.gob.mx/webSener/res/0/Programa%2520Sectorial%2520de%2520Energia%25202007-2012.pdf+programa+sectorial+de+energia+2007-2012&hl=de&ct=clnk&cd=2&gl=de.

natural gas, renewable energy sources, bio fuels), in order to reduce the environmental impact of the energy sector.[1191] With respect to clean electricity production, the programme envisages to save 21 million tonnes of carbon dioxide by installing liquid natural gas terminals on the Pacific coast, and through modernising existing electricity plants.[1192] With respect to clean oil production of Petróleos Mexicanos (Pemex), the *Programa Sectoral de Energía* aims to increase the availability of Pemex-produced ultralow-sulfur combustible fuels through the construction of new treatment plants, the modernization and incorporation of existing refineries into the existing National System of Refineries.[1193] This commitment is reiterated in the *Programa Nacional de Infraestructura 2007-2012*.[1194] Also endorsed were Pemex's current plans to develop combined heat and power facilities at several of its largest refineries to improve energy efficiency. Energy not used by Pemex itself will be passed on to the national grid. The move is expected to result in emissions savings of 7.7 million tonnes of carbon dioxide per year.[1195] In an effort to reduce fugitive emissions, Pemex has undertaken capacity building designed to train a technical team from July to December with the capacity to lower methane and CH4 levels on Pemex main sites;[1196] yet, progress on this project is unknown. Furthermore, in February, Pemex signed agreements with Credit Suisse Securities USA LLC and with Mitsui on projects for trading of carbon bonds.[1197]

Mexico has not just strengthened its political commitment through these two national strategies but also at bilateral level. On 17 April 2008, Secretary of Energy, Georgina Kessel Martínez and India's Minister of New and Renewable Energies, Vilas Muttemwar, signed a Memorandum of Understanding to cooperate in the areas of new and renewable energies.[1198] Both ministers agreed to develop mechanisms to promote the exchange of technical and scientific personnel, information and data, and joint research projects for new

[1191] Latin America special report: Mexico's flimsy raft of climate change measures, ClimateChangeCorp, 16 August 2007. Date of Access: 28 December 2007. http://www.climatechangecorp.com/content.asp?ContentID=4897.
[1192] Latin America special report: Mexico's flimsy raft of climate change measures, ClimateChangeCorp, 16 August 2007. Date of Access: 28 December 2007. http://www.climatechangecorp.com/content.asp?ContentID=4897.
[1193] Programa Sectorial de Energía 2007-2012. SENER, (Mexico). p.44, 28 November 2008. Date of Access: 27 December 2007. http://www.sener.gob.mx/webSener/res/0/Programa%20Sectorial%20de%20Energia%202007-2012.pdf.
[1194] Visión Sectorial: Infraestructura de Refinación, Gas y Petroquimica, Programa Naciónal de Infraestructura, (Mexico), 28 November 2008. Date of Access : 27 December 2007. http://www.infraestructura.gob.mx/index.php?page=estrategias-y-metas-10.
[1195] Latin America special report: Mexico's flimsy raft of climate change measures, ClimateChangeCorp, 16 August 2007. Date of Access: 28 December 2007. http://www.climatechangecorp.com/content.asp?ContentID=4897.
[1196] Methane to Markets Partnership (M2M): PEMEX Working Plan, 2007, M2M, (Aberdeen), Oil and gas subcommittee meeting, 1 May 2007. Date of Access : 22 January 2008. http://www.methanetomarkets.org/events/2007/oil-gas/docs/mexico_statement.pdf.
[1197] Pemex firma acuerdos para reducir sus emisiones de efecto gas invernadero, Gaceta IMP, 5 February 2008. Date of Access: 07 June 2008. http://akbal.imp.mx/gaceta_e/nota.asp?nt=px152.asp.
[1198] Firman México e India Acuerdo de Cooperación Energética, SENER, (México D.F.), 17 April 2008. Date of Access: 4 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=348.

and renewable energies.[1199] Further, José Miguel González Santaló, Director of the Division de Sistemas Mecánicos del IIE, represented Mexico at the annual meting of the Carbon Sequestration Leadership Forum that took place in South Africa from 13 to 17 April 2008. Most notably, he took part in working group discussions about the strengthening of technological capacity in all participating countries that resulted in the suggestion of an international workshop about carbon sequestration and capture to be held in Mexico in July 2008.[1200]

To provide the necessary knowledge base towards implementing its strategies, the Mexican government has announced support to research and development for applied technologies to mitigating environmental damage in the energy sector. During the Mexican conference on petrol on 28 May 2008, Secretary Kessel announced the creation of the Fund for Sustainable Energy which will finance scientific research and applied technologies for renewable energy sources, energy efficiency, and application of clean technologies, to which the 2008 budget of the federal government allocates over 100 million pesos.[1201] In addition, she mentioned funds of 1,000 million pesos in 2008 that will support the Mexican Institute of Petrol (*Instituto Mexicano del Petróleo*), in its task to research and develop technologies.[1202]

The government is pursuing incentive programmes for alternative and renewable energy development and application. On the one hand, it has launched a programme to establish voluntary carbon markets, which will create an incentive environment to reduce carbon emissions.[1203] On the other, the *Secretaría de Energía* (SENER) through the *Comisión Nacional para el Ahorro de Energía* (Conae) publicly recognised individuals, institutions, organisations, and enterprises through the fifth annual national awards for energy efficiency and renewable energies.[1204]

In the realm of renewable energies, Mexico has taken steps to strengthen the development of hydro, wind, solar power, and biofuels. More concretely, in January 2008, the construction of "la Yesca" hydro-electric power generation

[1199] Firman México e India Acuerdo de Cooperación Energética, SENER, (México D.F.), 17 April 2008. Date of Access: 4 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=348.
[1200] El IIE participa en la reunión anual del Carbon Sequestration Leadership Forum (CSLF), IIE, (Mexico D.F.), 02 June 2008. Date of Access: 06 June 2008. http://www.iie.org.mx/sitioIIE/sitio/control/03/detalle1.php?id=21.
[1201] Palabras de la Dra. Georgina Kessel Martínez, Secretaria de Energía, durante el Congreso Mexicano del Petróleo, SENER, (Mexico D.F.), 28 May 2008. Date of Access: 6 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=366.
[1202] Palabras de la Dra. Georgina Kessel Martínez, Secretaria de Energía, durante el Congreso Mexicano del Petróleo, SENER, (Mexico D.F.), 28 May 2008. Date of Access: 6 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=366.
[1203] Para Combatir el Cambio Climático, se Lanza el Programa Mercado Voluntario de Carbono, SEMARNAT, (Mexico D.F.), 08 May 2008, Date of Access: 07 June 2008. http://www.semarnat.gob.mx/saladeprensa/boletindeprensa/Pages/bol08-083.aspx.
[1204] Este 16 de mayo vence el plazo para concursar en los Premios Nacionales de Ahorro de Energía y Energía Renovable 2008, SENER, (Mexico D.F.), 29 April 2008. Date of Access: 05 June 2008. http://www.conae.gob.mx/wb/CONAE/CONA_boletin_premios.

station was launched in Jalisco.[1205] The capacity of wind power generation has been estimated at above 10,000 MW as indicated by the under-secretary of Energy Planning and Technical Development, Jordy Herrera Flores.[1206] The government expects that 2,500 MW of windpower will have been developed by the end of the current administration.[1207] As a first step towards this aim, Mexico did not only inaugurate the first production line of wind-generators made in Mexico on 10 January 2008,[1208] but is also developing windparks at the Isthmus of Tehuantepec.[1209]

Secretary of Energy, G Kessel, stressed the project to install a Combined Cycle Power Plant which in one of its processes uses solar energy.[1210] Furthermore, as Georgina Kessel pointed out during the Congress of Petrol, the government has signed a programme with various state governments to provide electricity to remote communities using renewable energy sources such as solar power and wind. This programme expects to cover 50 thousand homes by the end of the current administration.[1211]

Apart from electricity generation, Mexico has advanced its discussions on biofuels. The Bioenergy Law (*Ley de Promoción y Desarrollo de los Bioenergéticos*), passed by Mexico's Chamber of Deputies in April 2007 to encourage production and use of bio fuels, that President Calderón vetoed in September 2007,[1212] entered into force in February 2008.[1213] The law spells out the necessity to include programmes that define instruments, actions, procedures, and rules to sustainably drive the production and commercialisation of biofuels. At the same day, President Calderón

[1205] Discurso de la Dra. Georgina Kessel, secretaria de Energía, durante el inicio de obras de la presa "La Yesca", en Hostotipaquillo, Jalisco, SENER, (Mexico), 22 January 2008. Date of Access: 23 January 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=309.
[1206] El potencial de la energía eólica en México es superior a 10,000 MW: J. Herrera Flores, SENER, (Mexico D.F.), 10 January 2008. Date of Access: 5 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=307.
[1207] Palabras de la Dra. Georgina Kessel, secretaria de Energía, durante la Inauguración del 1er. Congreso Internacional de Biocombustibles, SENER, (Mexico D.F.), 7 May 2008. Date of Access: 7 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=356.
[1208] El potencial de la energía eólica en México es superior a 10,000 MW: J. Herrera Flores, SENER, (Mexico D.F.), 10 January 2008. Date of Access: 5 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=307.
[1209] Palabras de la Dra. Georgina Kessel, secretaria de Energía, durante la Inauguración del 1er. Congreso Internacional de Biocombustibles, SENER, (Mexico D.F.), 7 May 2008. Date of Access: 7 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=356.
[1210] Palabras de la Dra. Georgina Kessel, secretaria de Energía, durante la Inauguración del 1er. Congreso Internacional de Biocombustibles, SENER, (Mexico D.F.), 7 May 2008. Date of Access: 7 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=356.
[1211] Palabras de la Dra. Georgina Kessel Martínez, Secretaria de Energía, durante el Congreso Mexicano del Petróleo, SENER, (Mexico D.F.), 28 May 2008. Date of Access: 09 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=366.
[1212] B. Ulloa, Calderón veta proyecto ley de bioenergéticas, Olganza Weblog Business, 3 September 2007. Date of Access: 23 January 2008. http://olganza.com/2007/09/03/calderon-veta-proyecto-ley-de-bioenergeticos/.
[1213] Palabras de la Dra. Georgina Kessel, secretaria de Energía, durante la Inauguración del 1er. Congreso Internacional de Biocombustibles, SENER, (Mexico D.F.), 7 May 2008. Date of Access: 7 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=356.

nominated Secretary Kessel to act as head of the inter-ministerial technical commission for the Development of Biofuels.[1214]

On 7 May 2008, Georgina Kessel opened the first international conference on biofuels to among other things discuss the first working draft to shape Mexico's Programme to Introduce Biofuels,[1215] to provide insights for investors into programmes that emanate from the Law mentioned above, and to discuss lessons learned from biofuels production.[1216] Importantly in this respect, various players, such as under-secretary, Sandra Herrera Flores, have been reiterating that the development of biofuels in Mexico has to guarantee food security, and economic, social, and environmental sustainability.[1217] In this respect, Secretary of the Environment, Juan Elvira Quesada has pointed out to use sugarcane and palm oil rather than maize to generate biofuels in the country.[1218]

In sum, Mexico has integrated cleaner and more energy efficient production processes and renewable sources of energy into vital strategic planning documents with the explicit aim to mitigate the environmental impacts of the energy sector. Nevertheless, it could be argued that its target to increase the share of renewable energy in the total electricity mix by two percentage points over five years is rather modest. Furthermore, it has pursued a number of initiatives to drive the actual realisation of cleaner and renewable energy production on the ground. Yet, these initiatives have been criticised by independent experts as somewhat incoherent and insufficient to really increase the share of renewable and alternative energies in Mexico's energy mix.[1219] Mexico has still a long way to go to achieve an actual reduction in the emissions intensity of its energy production. Nevertheless, due to its efforts to mainstream renewable and clean energy technologies that have gained it international recognition by for example GermanWatch,[1220] it is considered to have fully complied with its commitment in the current evaluation period.

[1214] Anunciarán Programas para dar certidumbre a productores, en el marco del Congreso Internacional sobre Biocombustibles, SENER, (Mexico D.F.), 6 May 2008. Date of Access: 05 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=354.
[1215] Palabras de la Dra. Georgina Kessel, secretaria de Energía, durante la Inauguración del 1er. Congreso Internacional de Biocombustibles, SENER, (Mexico D.F.), 7 May 2008. Date of Access: 7 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=356.
[1216] Anunciarán Programas para dar certidumbre a productores, en el marco del Congreso Internacional sobre Biocombustibles, SENER, (Mexico D.F.), 6 May 2008. Date of Access: 05 June 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=354.
[1217] Los biocombustibles no deben de poner en riesgo la seguridad alimentaria y el desarrollo sustentable de México, SEMARNAT, (Mexico D.F.), 11 May 2008. Date of Access: 07 June 2008. http://www.semarnat.gob.mx/saladeprensa/boletindeprensa/Pages/bol08-086.aspx.
[1218] No es rentable el uso de maíz en México para la industria energética: Semarnat, SEMARNAT, (Mexico D.F.), 6 June 2008, Date of Access: 7 June 2008. http://www.jornada.unam.mx/2008/06/06/index.php?section=sociedad&article=047n1soc.
[1219] David Biller, Interview with Independent Energy Consultant Lourdes Melgar, Business News Americas, 13 March 2008. Date of Access: 9 June 2008. http://www.bnamericas.com/perspectives_qa.jsp?sector=10&idioma=I&documento=458703
[1220] Alexis Madrigal, Bali Meeting Ends; Mexico Emerges as a Leader on Climate Change, Wired News, 14 December 2007. Date of Access: 28 December 2007. http://www.wired.com/print/science/planetearth/news/2007/12/mexico_climate.

Analyst: Jessica Toale and Marie Karaisl

Mexico	Score
2C. Promote Less Emission-Intensive Energy Consumption	**0**

During the Heiligendamm Summit in the summer of 2007, Mexico recognized the need to not only curb the carbon footprint of its country through supply-side measures but also to address demand-side issues. In this respect it has integrated energy saving strategies into its National Energy Plan 2007-2012, is addressing energy saving measures in the housing sector, and is developing new public transport expansion plans. Yet, apart from strategic planning, significant action towards implementation has been missing and Mexico is considered to have complied only partially.

On 24 August 2007, at the *Foro Sociedad y Cambio Climático* organized by the Ministries of Environment and External Affairs, the Under-secretary of planning and political environment, Fernando Tudela Abad, pointed out that raising awareness and mobilising the participation of citizens to combat climate change was one of the priorities of president Caldéron's administration.[1221] Important for this commitment, the under-secretary emphasised that the government was pursuing activities to cancel subsidies that promote energy consumption, and to develop low-carbon public transport options.[1222]

In fact, on 28 November 2007, Mexico released its Energy plan 2007-2012, which incorporates the objective to promote the efficient consumption and production of energy (Objective III.1).[1223] In this document, the government sets the target to double savings in energy consumption from 22 GWh in 2006 to 43 GWh in 2012. The strategies incorporated in the plan and to be adopted by the government over the next five years include working with commercial and development banks in order to provide financing for programmes that are energy efficient, and contribute to the decrease of the effects of climate change; and increasing funding for the replacement of light bulbs in residential housing, refrigerators, air conditioning systems, and heating systems with substitutes that are more energy efficient. Further, the energy consumption of federal offices and buildings will be put under scrutiny, in order to make them comply with the environmental regulations already in place. Education programs and the standardization of the labelling of energy efficient products are also measures intended to help consumers to increase

[1221] Motivar la Participacion social en las Estrategias de Cambio Climático, Objecto Del Gobierno Federal, SEMARNAT, (Mexico), 24 August 2007. Date of Access: 11 December 2007. http://www.SEMARNAT.gob.mx/saladeprensa/boletindeprensa/Pages/bol07-126.aspx.
[1222] Motivar la Participacion social en las Estrategias de Cambio Climático, Objecto Del Gobierno Federal, SEMARNAT, (Mexico), 24 August 2007. Date of Access: 11 December 2007. http://www.SEMARNAT.gob.mx/saladeprensa/boletindeprensa/Pages/bol07-126.aspx.
[1223] Programa Sectorial de Energia, SENER, (Mexico), 28 November 2007. Date of Access: 2 January 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=57.

their energy efficiency. The report stresses an inter-institutional approach in order to maximize the results of these programs.[1224]

More specifically with respect to the housing sector, President Caldéron presented the National Program for the Development of Sustainable Housing for 2007-2012, on 21 January 2008.[1225] In his speech, the president announced that his government, in cooperation with INFONAVIT, was developing green mortgages in order to allow the incorporation of green technologies such as solar heaters, efficient light bulbs, and water systems into new housing schemes.[1226] The president further mentioned an additional programme to save energy by substituting electrical appliances which would be announced soon, and specific incentives for using alternative energies in housing, however without specifying any concrete contents or dates.[1227]

Mexico is investing in public transportation in what is considered the "rebirth" of the railroad system. In this respect, a new suburban railroad system for Mexico City, expected to be functional by 2010/11 will serve 145 million passengers, and avoid the emission of 57 thousand tonnes of contaminants per year. [1228] In addition, on 4 January 2008, President Calderón announced that the railroad network would be expanded from currently eight railroads in operation to 18 routes by 2012.[1229] Yet, this positive development does not preclude the expansion of Mexico's highway system, which is criticised by environmental NGOs not only for promoting more carbon-intensive road traffic, but also to destroy critical forest ecosystems, and thus carbon sink capacity.[1230]

In May 2008, the National Geographic Society (NGS) published Greendex, an attempt to study the patterns of consumers and their environmental impacts.

[1224] Programa Sectorial de Energia, SENER, (Mexico), 28 November 2007. Date of Access: 2 January 2008. http://www.sener.gob.mx/webSener/portal/index.jsp?id=57.
[1225] El Presidente Calderón en la Presentación del Programa Nacional para el Desarrollo Habitacional Sustentable 2007-2012 y Entrega del Premio Nacional de Vivienda, Presidencia, (Mexico), 21 January 2008. Date Access: 23 January 2008. http://www.presidencia.gob.mx/prensa/?contenido=33403.
[1226] El Presidente Calderón en la Presentación del Programa Nacional para el Desarrollo Habitacional Sustentable 2007-2012 y Entrega del Premio Nacional de Vivienda, Presidencia, (Mexico), 21 January 2008. Date Access: 23 January 2008. http://www.presidencia.gob.mx/prensa/?contenido=33403.
[1227] El Presidente Calderón en la Presentación del Programa Nacional para el Desarrollo Habitacional Sustentable 2007-2012 y Entrega del Premio Nacional de Vivienda, Presidencia, (Mexico), 21 January 2008. Date Access: 23 January 2008. http://www.presidencia.gob.mx/prensa/?contenido=33403.
[1228] Impulsa SCT el Transporte Masivo de Pasajeros por Ferrocarill , SCT, (Mexico), 11 July 2007. Date of Access: 23 January 2008. http://www.sct.gob.mx/index.php?id=24&tx_ttnews[pointer]=35&tx_ttnews[tt_news]=219&tx_ttnews[backPid]=20&cHash=583702722f.
[1229] Comunicado de Prensa No. 002.- El Futuro del Transporte en México Tendrá que ser Multimodal: Luis Téllez, SCT, (Mexico), 4 January 2008, Date of Access: 23 January 2008. http://www.sct.gob.mx/index.php?id=13&tx_ttnews[pointer]=11&tx_ttnews[tt_news]=313&tx_ttnews[backPid]=35&cHash=575b287075.
[1230] Ignora el Gobierno a criticos de la autopista lerma-tres marias, planeta azul, (Mexico), 22 May 2008. Date of Access: 26 May 2008. http://www.planetaazul.com.mx/www/2008/05/22/ignora-el-gobierno-a-criticos-de-la-autopista-lerma-tres-marias/.

This report revealed that Mexicans ranked fourth in terms of environmental conscience. On the one hand, this ranking can be explained by current standards of living in Mexico; in the words of Terry Garcia, NGS vice-president: "Mexicans live in small houses which contributed to their higher ranking, they use less air conditioning and often don't use heating."[1231] Nevertheless, the report highlighted that Mexicans are more aware of their impact on the environment, and make use of various techniques to improve energy consumption within the household including using cold water for washing and high efficiency lighting.[1232] Yet, the fact that this report interviewed only 1,000 people via online questionnaires renders its finding indicative at best, and does not show if this is a change in attitude, and if this change can be associated with governmental measures.

On 8 May 2008, the government of Mexico launched a voluntary carbon exchange market.[1233] Through this scheme, private companies, civil organizations, and society can work together to take concrete steps in reducing the impact of greenhouse gases.[1234] Elvira Quesada explains: "With this program and the support of the people, SEMARNAT wishes to see Mexico become an example in terms of the fight against global warming."[1235]

The incorporation of energy saving measures, and the promotion of rail transport are a positive development towards more energy efficient consumption in Mexico. Yet, beyond these announcements, there remains little evidence that actual measures have been put in place. This lack of concrete action has brought criticism from Greenpeace demanding more action and less talk.[1236] Mexico's Green Party has given a positive account of the first year of this government's administration but also wishes to see more concrete action in 2008.[1237] To date such actions have not been taken. Promoting less-intensive energy consumption has been mostly taken on by municipal governments, and the links between their actions and the Federal

[1231] Es México cuarto en Ecologia, Planeta Azul, (Mexico), 10 May 2008. Date of Access: 26 May 2008. http://www.planetaazul.com.mx/www/2008/05/10/es-mexico-cuarto-en-ecologia/.
[1232] Es México cuarto en Ecologia, Planeta Azul, (Mexico), 10 May 2008. Date of Access: 26 May 2008. http://www.planetaazul.com.mx/www/2008/05/10/es-mexico-cuarto-en-ecologia/.
[1233] Para Combatir el cambio climático, se lanza el programa mercado voluntario de carbono, SEMARNAT, (Mexico), 8 May 2008. Date of Access: 26 May 2008. http://www.semarnat.gob.mx/saladeprensa/boletindeprensa/Pages/bol08-083.aspx.
[1234] Para Combatir el cambio climático, se lanza el programa mercado voluntario de carbono, SEMARNAT, (Mexico), 8 May 2008. Date of Access: 26 May 2008. http://www.semarnat.gob.mx/saladeprensa/boletindeprensa/Pages/bol08-083.aspx.
[1235] Para Combatir el cambio climático, se lanza el programa mercado voluntario de carbono, SEMARNAT, (Mexico), 8 May 2008. Date of Access: 26 May 2008. http://www.semarnat.gob.mx/saladeprensa/boletindeprensa/Pages/bol08-083.aspx.
[1236] Greenpeace exige más acciones y menos discursos para combatir el cambio climático, Greenpeace, 19 December 2007. Date of Access: 25 January 2008. http://www.greenpeace.org/mexico/news/greenpeace-exige-mas-acciones-2.
[1237] Como Positiva Califica PVEM la Gestion del Primer año de Gobierno de Felipe Calderón, Partido Verde Ecologista de Mexico, 30 November 2007. Date of Access: 26 January 2008. http://www.pvem.org.mx/web/index.php?option=com_content&task=view&id=1288&Itemid=43.

government remain unclear. Thus, Mexico is found to be only in partial compliance with this commitment.

Analyst: Catherine Nadeau

South Africa

Background

With the presentation of the Long Term Mitigation Scenario (LTMS) study during the annual budget speech by Minister of the Environmental Martinus van Schalkwyk on 20 May 2007 and its notification by the cabinet, the South African government has made some significant progress towards developing a comprehensive national climate change policy.[1238] Other government departments, such as finance and defense, have integrated climate change mitigation and adaptation as core responsibilities.[1239]

In December 2007, the African National Congress passed a resolution on climate change, which announced that South Africa will develop specific emission reduction targets in order to "participate in the sharing the burden with the global community."[1240] In combination with the LTMS, this provides South Africa with a broad range of potential measures and policies of how to achieve long-term reductions across all sectors of economic and societal activity, such as improved energy efficiency, the diversification of energy resources, and the exploration of carbon capture and storage methods. Both documents also stress the importance of building capacity to adapt to the inevitable impacts of climate change. The commitment to take "measurable, reportable and verifiable mitigation action"[1241] was reiterated at the meeting of the G8 Environment Ministers in Kobe on 25 May 2008.[1242] South Africa has committed to far-reaching and decisive policy responses to the threats posed by climate change. However, it remains to be seen how the major developments of 2007 and 2008 are transformed into government policy.

The extreme energy shortages experienced in early 2008 have created a strong impetus to fulfill South Africa's commitments on energy production and consumptions. While the connection between the reduction of electricity

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[1238] Budget Vote speech by Marthinus van Schalkwyk, Minister of Environmental Affairs and Tourism, National Council of Provinces, 5 June 2008. Date of Access: 10 June 2008. http://www.info.gov.za/speeches/2008/08060516151001.htm

[1239] Address by Minister of Defence MGP Lekota on the occasion of the Defence Budget Vote, National Assembly, Cape Town, 27 May 2008. Date of Access: 01 June 2008. http://www.info.gov.za/speeches/2008/08052715151001.htm. Harald Winkler, Budgeting for climate change, 21 May 2008. Date of Access: 01 June 2008. http://polity.org.za/article.php?a_id=128773

[1240] Statement by Marthinus van Schalkwyk in response to media enquiries regarding the governing parties Polokwane resolution on climate change, DEAT, 23 December 2007. Date of Access: 05 January 2008. http://www.info.gov.za/speeches/2007/07122410451001.htm

[1241] SA 'stands ready' to deliver on climate change, Mail & Guardian Online (Johannesburg). 12 December 2007. Date of Access: 20 December 2007. http://www.mg.co.za/articlepage.aspx?area=/breaking_news/breaking_news__national/&articleid=327554&referrer=RSS

[1242] Remarks by Marthinus van Schalkwyk during discussions on Climate during the G8 Environment Ministers meeting in Kobe, Japan, Ministry of Environmental Affairs and Tourism, 25 May 2008. Date of Access: 9 June 2008. http://www.environment.gov.za//NewsMedia/MedStat/2008May26/25052008.doc

demand and its effects on climate change has been made,[1243] these moves have been aimed primarily at decreasing demand rather than specifically targeting a reduction of GHG emissions.[1244] The Minister of Public Enterprises and the Minister of Minerals and Energy announced a National Electricity Response Plan on 25 January 2008 , which outlined various measures in order to reduce energy consumption and to improve energy efficiency such as the combination of electricity load shedding and voluntary electricity rationing among municipalities.[1245] The plan also explicitly acknowledges the role of alternative and renewable energy sources as a solution to supply-side failures.[1246] The South African government has further taken some active steps to achieve less carbon-intensive energy production, such as the introduction of a new levy on the sale of electricity generated from non-renewable resources and the allocation of funds to renewable energy projects.

The analysis nevertheless finds that, overall, South Africa is only in partial compliance to its climate-change related commitments as it has, for instance, not set explicit targets for the reduction of carbon content of its domestic energy production. Further, questions remain about how and whether they will be implemented to achieve the desired result.

Team Leader and Analyst: Miriam Prys

South Africa	**Score**
2A. Stabilise GHG Concentrations	**0**

Until the Bali Climate Conference in 2007, South Africa had avoided both formulating concrete reduction targets for domestic and global GHG concentrations and specifying the level of global temperature rise it deemed acceptable. Climate change was not considered a policy area of high importance in most government departments.[1247] However, in the run-up to

[1243] SA: Van Schalwyk: Environmental and Tourism Dept Budget Vote 2008/09, Department of Environmental Affairs and Tourism (DEAT), 20 May 2008. Date of Access: 01 June 2008. http://www.polity.org.za/article.php?a_id=133931

[1244] National Response to South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 03 June 2008. http://llnw.creamermedia.co.za/articles/attachments/10986_nationalresponse_sa_electricity1.pdf

[1245] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of access: 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf. Budget Speech by the Minister of Finance, Trevor A Manuel. 20 February 2008. Date of Access: 11 June 2008. http://www.info.gov.za/speeches/2008/08022016151001.htm

[1246] National Response to South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 03 June 2008. http://llnw.creamermedia.co.za/articles/attachments/10986_nationalresponse_sa_electricity1.pdf

[1247] Climate action is affordable, DEAT, 06 November 2007. Date of Access: 29 December 2007. http://www.deat.gov.za/NewsMedia/MedStat/2007Nov6_1/06112007.html. SA: Van

the Bali conference, Marthinus van Schalkwyk, South Africa's Minister for the Environment, endorsed the view that emissions must peak in the next 10 to 15 years, and then be reduced by half of the 2000 levels by 2050.[1248] While the government agrees that South Africa's emissions have to "peak and decline sooner rather than later", and its Long Term Mitigation Scenario Strategy (LTMS) specifies that South Africa's role in guaranteeing global climate stability would be to limit emissions to between 30% and 40% of 2003 levels by 2050[1249] the majority of GHG reductions would have to come from developed countries, by at least 25% to 40% below 1990 levels by 2020 or 60% to 80% by 2050.[1250] In terms of tolerable warming, the government has affirmed that an increase of 1 to 2 degrees Celsius in global temperature above 1990 levels would pose a significant risk to many unique and threatened ecosystems.[1251]

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Subsequently, these statements recognizing the urgency of the climate problem and the need for global action were followed by commitments to national action. On 12 December 2007 at the Bali conference, the government committed to take a "pro-active approach" towards addressing climate change.[1252] As a signatory of the Bali Action Plan, South Africa committed "to doing more to combat climate change and to taking measurable, reportable and verifiable mitigation action".[1253] This, however, does not include the endorsement of obligatory emission reductions for developing countries, but an acceptance of "aspirational long-term goals as part of a shared vision as outlined in the Bali Action Plan".[1254] The conclusion of the Long Term Mitigation Scenario Study (LTMS), initiated by the cabinet in 2005, that Minister Schalkwyk announced during the 2008/2009 Budget Speech has been a key step in the move towards a long-term climate policy in form of a "legislative, regulatory and fiscal package that will give effect to our policy at a

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Schalwyk: Environmental and Tourism Dept Budget Vote 2008/09, DEAT, 20 May 2008. Date of Access: 01 June 2008. http://www.polity.org.za/article.php?a_id=133931

[1248] Climate action is affordable, DEAT, 06 November 2007, Date of Access: 29 December 2007. http://www.deat.gov.za/NewsMedia/MedStat/2007Nov6_1/06112007.html

[1249] Budget Vote speech by Marthinus van Schalkwyk, Minister of Environmental Affairs and Tourism, National Council of Provinces, 5 June 2008. Date of Access: 10 June 2008. http://www.info.gov.za/speeches/2008/08060516151001.htm

[1250] Climate action is affordable, DEAT, 06 November 2007, Date of Access: 29 December 2007. http://www.deat.gov.za/NewsMedia/MedStat/2007Nov6_1/06112007.html

[1251] Statement by Marthinus van Schalkwyk in response to the release of the IPCC'S Fourth Assessment Report, DEAT, 18 November 2007. Date of Access: 20 December 2007. http://www.info.gov.za/speeches/2007/07111911151001.htm

[1252] Speech by Marthinus van Schalkwyk during the Opening Ceremony of Wild Talk Africa 2007, DEAT, 27 August 2007. Date of Access: 20 December 2007. http://www.polity.org.za/article.php?a_id=115626

[1253] SA 'stands ready' to deliver on climate change, Mail & Guardian Online (Johannesburg). 12 December 2007. Date of Access: 20 December 2007. http://www.mg.co.za/articlepage.aspx?area=/breaking_news/breaking_news__national/&articleid=327554&referrer=RSS

[1254] Remarks by Marthinus van Schalkwyk, South African Minister of Environmental Affairs and Tourism during the G8 Environment Ministers Meeting, Kobe, Japan, 25 May 2008. Date of Access: 10 June 2008. http://www.environment.gov.za//NewsMedia/MedStat/2008May26/25052008.doc

mandatory level".[1255] The cabinet has mandated the Department of Environment and Tourism (DEAT) to further suggest implementation plans during the third quarter of 2008 in a fast track procedure to translate this strategic plan into actual policy directives.[1256] According to this schedule, this process will culminate in a National Climate Summit and Science Conference early in 2009 during which Minister van Schalkwyk plans to formally launch South Africa's climate change policy process.[1257]

Leading up to the presentation of the LTMS, the ANC, South Africa's governing party, adopted the Polokwane Resolution on Climate Change on 19 December 2007. This resolution specifies some elements of a future climate change policy, such as integrating energy planning, transport policy and industrial policy, the goal of zero waste production and energy efficiency improvements.[1258] In combination with the LTMS, this resolution suggests a major attitudinal shift for the ANC and has considerable symbolic importance. However, it remains unclear whether the ambitious targets, both in terms of content and schedule, will be reached and whether the policy suggestions will have the intended effects of cutting domestic GHG emissions.

South Africa also developed various climate-change related projects, whose final reports are expected to be published in either 2008 or 2009. Among the key initiatives is the refinement of department sector plans within the National Climate Change Response Strategy.[1259] The Departments of Water Affairs and Forestry, Agriculture, and Science and Technology have, for instance, integrated strategies to adapt to climate change with their research, development, and implementation frameworks.[1260] A new element to South Africa's strategy is targeted awareness raising regarding climate change and the environment as for instance through the launch of the national environment month with the theme "All Hands on Deck –Towards a Low-Carbon Economy" on 5 June 2008 and the funding of the South African Climate Action Network's (SACAN) Climate Change Civil Society Capacity Development Project.[1261] Again, however, none of these initiatives have been completed and their final results are to be expected in the next few months.

[1255] Budget Vote speech by Marthinus van Schalkwyk, Minister of Environmental Affairs and Tourism, National Council of Provinces, 5 June 2008. Date of Access: 10 June 2008. http://www.info.gov.za/speeches/2008/08060516151001.htm

[1256] Budget Vote speech by Marthinus van Schalkwyk, Minister of Environmental Affairs and Tourism, National Council of Provinces, 5 June 2008. Date of Access: 10 June 2008. http://www.info.gov.za/speeches/2008/08060516151001.htm

[1257] One step closer to formal climate change policy for South Africa, Engineering News, 5 June 2008. Date of Access: 10 June 2008.

[1258] Statement by Marthinus van Schalkwyk in response to media enquiries regarding the governing parties Polokwane resolution on climate change, DEAT, 23 December 2007. Date of Access: 05 January 2008. http://www.info.gov.za/speeches/2007/07122410451001.htm

[1259] Dept to Finalise National Climate Policy, BuaNews (Tshwane), 6 June 2007. Date of Access: 02 January 2008. http://allafrica.com/stories/200706060828.html

[1260] Roadmap for National Climate Policy, DEAT, 5 June 2007. Date of Access: 27 December 2008. http://www.environment.gov.za/HotIssues/2007/nationalenvironmentweek/Roadmap%20for%20National% %20Climate%20Policy.doc

[1261] Media alert for the launch of the national environment month, DEAT, 29 May 2008. Date of Access: 9 June 2008. http://www.info.gov.za/speeches/2008/08053015451007.htm,

With regard to the collection and sharing of information on emissions, DEAT launched the first ever South African carbon disclosure project report on the Johannesburg Securities Exchange (JSE) top 40 listed companies in November 2007.[1262] As part of an effort to further increase carbon disclosures, it is currently working on the South African GHG Inventory, which is expected to be completed in November 2008. This project, which is being carried out by the Energy Research Centre at the University of Cape Town, is aimed at creating an emission inventory system to provide emission information of a quality that complies with both UNFCCC and local requirements.[1263]

In order to prepare for the inevitable scenarios of "droughts, floods, sea level rise, dramatic plant and animal extinctions, extreme weather events and the spreading of disease vectors", both the Polokwane Resolution and the LTMS include adaptation into their response to climate change.[1264] While the DEAT is obliged to propose clear mechanisms for the implementation of adaptation policies only by late 2008, the Polokwane Resolution already proposed building capacity "to adapt to the inevitable impacts of climate change, most importantly in the roll-out of basic services, infrastructure planning, agriculture, biodiversity, water resource management, and in the health sector".[1265] Three areas have received attention; conservation of biodiversity, improving the management of coastal areas, and combating deforestation.

On 5 June 2007, the government announced the development of a National Adaptation Plan in its Roadmap for a National Climate Change Policy.[1266] While no specific details of the plan have been released, it has become clear that the key concern of the South African government so far has been the potential impact of a destruction of ecosystems and biodiversity on South Africa's tourist industry, which accounts for approximately 8% of its GDP.[1267] A clear link between climate change adaptation and conservation is also made in the LTMS.[1268] As an example for respective policy action, SANParks, the

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National Assembly, Question No. 1486, Internal Question Paper No. 33 of 2007, 14 September 2007. Date of Access: 02 January 2008. http://www.environment.gov.za/ParliamentUpdate/2007/aug/NW2247E-04102007.doc. South Africa: June to be Celebrated as Environment month, AllAfrica, 30 May 2008. Date of Access: 9 June 2008. http://allafrica.com/stories/200805300674.html

[1262] Media Alert, DEAT, 22 November 2007. Date of Access: 20 December 2007. http://www.info.gov.za/speeches/2007/07112208451001.htm

[1263] National Assembly, Question No. 1312, Internal Question Paper No. 27 of 2007, 17 August 2007. Date of Access: 02 January 2008. http://www.environment.gov.za/ParliamentUpdate/2007/aug/NW1872E-19092007.doc

[1264] SA: Van Schalwyk: Environmental and Tourism Dept Budget Vote 2008/09, DEAT, 20 May 2008. Date of Access: 01 June 2008. http://www.polity.org.za/article.php?a_id=133931

[1265] Statement by Marthinus van Schalkwyk in response to media enquiries regarding the governing parties Polokwane resolution on climate change, DEAT, 23 December 2007. Date of Access: 02 January 2008. http://www.info.gov.za/speeches/2007/07122410451001.htm

[1266] Roadmap for National Climate Policy, DEAT, 5 June 2007. Date of Access: 27 December 2008. http://www.environment.gov.za/HotIssues/2007/nationalenvironmentweek/Roadmap%20for%20National%20Climate%20Policy.doc

[1267] Dept to Finalise National Climate Policy, BuaNews, (Tshwane), 6 June 2007. Date of Access: 02 January 2008. http://allafrica.com/stories/200706060828.html

[1268] SA: Van Schalwyk: Environmental and Tourism Dept Budget Vote 2008/09, DEAT, 20 May 2008. Date of Access: 01 June 2008. http://www.polity.org.za/article.php?a_id=133931

national park service, has taken on the management of 100,000 hectares of indigenous forests in the Garden Route in 2007.[1269]

Second, on 8 May 2008, Minister van Schalkwyk introduced the cabinet-approved Integrated Coastal Management Bill to the National Assembly, aimed at improving the management of coastal resources by providing a comprehensive legal and administrative framework to promote social equity and the protection of the natural environment.[1270] The DEAT has further announced increased investments into the South African Weather Service (SAWS) to improve weather forecasts, and prevent natural disasters.[1271] On 20 May 2008, the Deputy Minister of Environmental Affairs and Tourism, Rejoice Mabudafhasi, launched the SAWS Flash Flood Project funded with R4.95 million to "provide information, data and products necessary for the safety of human life and property".[1272]

Desertification and water security is the third key aspect of South Africa's adaptation concerns.[1273] On 3 September 2007, the government organized a conference on combating desertification, gathering environment officials from government departments, private sector, and national research institutions. The objective was to get participants involved in "multi-pronged programmes to identify vulnerable regions, and mitigation actions to alleviate the threat posed by desertification and climate change".[1274] Projects to date include the Machubeni Catchment Management project, which is a showcase initiative for contributions to combating desertification and climate change. By the end of 2007, the DEAT had introduced an additional eight pilot projects totaling R40 million to rehabilitate land and fight land degradation.[1275]

Internationally, South Africa was one of the key supporters of the establishment of an international Adaptation Fund at the United Nations

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[1269] Speech by Marthinus van Schalkwyk during the Opening Ceremony of Wild Talk Africa 2007, DEAT, 27 August 2007. Date of Access: 20 December 2007. http://www.polity.org.za/article.php?a_id=115626

[1270] Speech by Marthinus van Schalkwyk, Minister of Environmental Affairs and Tourism on the Introduction of the Integrated Coastal Management Bill in the National Assembly, DEAT, 8 May 2008. Date of Access: 01 June 2008. http://www.environment.gov.za//NewsMedia/Speeches/2008May8_1/08052008.doc

[1271] Speech by Marthinus Van Schalkwyk during the National Assembly debate on the Budget Vote, DEAT, 5 June 2007. Date of Access: 20 December 2007. http://www.info.gov.za/speeches/2007/07060517151001.htm

[1272] Budget Vote Speech by Deputy Minister of Environmental Affairs and Tourism , Ms Rejoice Mabudafhasi, National Assembly, 20 May 2008. Date of Access: 01 June 2009. http://www.environment.gov.za//NewsMedia/Speeches/2008May20_1/20052008_DepMin Speech.html

[1273] Deputy Minister Mabudafhasi's speech for the Celebration of the World Day to Combat Desertification at Machubeni, Eastern Cape, 20 June 2007. Date of Access: 20 December 2007. http://www.aridareas.co.za/documents/documents12.htm

[1274] Environment officials attend convention to combat desertification, DEAT, 03 September 2007. Date of Access: 02 January 2008. http://www.info.gov.za/speeches/2007/07090410151001.htm

[1275] World Day to Combat Desertification celebrations focus on link between desertification and climate change, DEAT, 19 June 2007. Date of Access: 27 December 2007. http://www.info.gov.za/speeches/2007/07061914151001.htm

Climate Change Conference in Bali from 3-14 December 2007.[1276] In terms of regional efforts, South Africa is currently co-chairing the Abidjan and Nairobi Conventions, and hosted the Joint Conference of Parties (COP) on 17 October 2007. The purpose of the Nairobi Convention is the protection and development of the Marine and Coastal Management of the Eastern African region.[1277]

In conclusion, new policies, in particular with respect to adaptation, have in fact been introduced and some advances have been made in the field of gathering and sharing of GHG emissions. With both the LTMS and the Polokwane Resolution, a clear move has been made to a more active and committed approach to implementing both emission reductions and adaptation, no specified domestic targets have been set as of yet. However, it is too soon to see whether these initiatives will achieve their objectives. Therefore, based on the assessment above, South Africa is found to be in partial compliance with this commitment.

Analyst: Miriam Prys

South Africa	**Score**
2B. Promote Less Emission-Intensive Energy Production	**0**

South Africa has not set an explicit target as such to lower the carbon content of its domestic energy production. However, the Renewable Energy White Paper of 2003[1278] sets the target to increase the share of renewables in overall energy supply to 10,000 GWh by the year 2013, or 4% of total electricity by 2013.[1279] Further, on 6 December 2007, Cabinet approved the Industrial Biofuels Strategy, which aspires to raise the share of biofuels in total liquid fuel supply to 2%.[1280]

South Africa has demonstrated a political commitment towards promoting less emission intensive energy production at both the international and national levels. At international level, South Africa, together with India and

[1276] Statement by Marthinus van Schalkwyk on Climate Change: Bali Roadmap, DEAT, 15 December 2007. Date of Access: 04 January 2008. http://www.info.gov.za/speeches/2007/07122814151004.htm
[1277]South Africa to host Joint Conference of Parties for Abidjan and Nairobi Conventions, DEAT, 17 October 2007. Date of Access 04 January 2008. http://www.info.gov.za/speeches/2007/07101809451004.htm
[1278] Policies and Measures (PAMs) for Renewable Energy and Energy Efficiency, Earthlife, Sustainable Energy Briefing 6, Sustainable Energy and Climate Change Project, June 2005. Date of Access: 03 December 2007. http://www.earthlife-ct.org.za/PopUpDisplay.php?ObjectID={C665B693-E50E-4B3A-8D18-BE50FE5BD94F}
[1279] Introductory remarks by Ms B Sonjica, Minister of Minerals and Energy, South Africa, at WIREC 2008 in Washington, Department of Minerals and Energy, 06 March 2008. Date of Access: 03 June 2008. http://www.info.gov.za/speeches/2008/08031110451001.htm
[1280] Transcript of Post-Cabinet briefing, Government Communications, 06 December 2007. Date of Access: 07 December 2008. http://www.info.gov.za/speeches/2007/07120616151003.htm

Brazil, expressed its commitment to advance trilateral work on biofuels, and urged the Trilateral Task Team on Biofuels to deepen the discussions aimed at expanding the cooperation of partners in this field, at the India-Brazil-South Africa (IBSA) Dialogue meeting on 17 July 2007.[1281] At the second IBSA Summit, held in October 2007,[1282] the three countries signed the (voluntary) IBSA Declaration on Clean Energy, to cooperate to promote clean energy technologies and renewable energies.[1283] On 21 November 2007, Cabinet agreed that South Africa should ratify the African Energy Convention (AFREC), which sets and monitors standards in energy production and assists in developing renewable energy technologies.[1284]

At national level, the severe energy crisis that has hit South Africa has contributed to the growing importance of renewable and clean energies. While the Master Plan for Electricity Generation,[1285] discussed in the second half of 2007, marginalizes alternative and clean energies, alternative and renewable sources of energy are acknowledged as part of the solution to current supply failures by the National Electricity Response Plan, drafted in January 2008,[1286] the APEX Priorities announced by President Mbeki in his State of the Nation Address on 8 February 2008,[1287] and the Presidential Joint Working Group meeting on 29 February 2008.[1288] Furthermore, according to the National Electricity Response Plan, a comprehensive Renewable Energy plan is currently under development, and will be submitted to Cabinet during the first half of 2008.[1289]
In addition to these policies which were largely triggered by the energy crisis, climate change has gained explicit high-level support from the Ministries of Finance and Public Enterprises. In his budget speech on 20 February 2008,

[1281] New Delhi Ministerial Communiqué 2007 of India-Brazil-South Africa (IBSA) Dialogue Forum, Department of Foreign Affairs, 17 July 2007. Date of Access: 27 December 2007. http://www.info.gov.za/speeches/2007/07071715451001.htm
[1282] Tshwane India-Brazil-South Africa (IBSA) Summit declaration, Department of Foreign Affairs, 17 October 2007. Date of Access: 27 December 2007. http://www.info.gov.za/speeches/2007/07101810151001.htm
[1283] India-Brazil-South Africa Declaration on Clean Energy, International Energy Agency, 19 November 2008. Date of Access: 03 June 2008. http://www.iea.org/textbase/pm/?mode=re&id=3765&action=detail
[1284] Statement on Cabinet meeting 21 November 2007, Government Communications, 22 November 2007. Date of Access: 27 December 2007. http://www.info.gov.za/speeches/2007/07112210451001.htm
[1285] Energy Security Master Plan - Electricity, Department of Minerals and Energy, 2007. Date of Access: 27 December 2007. http://www.dme.gov.za/pdfs/energy/energy_sec_master_plan.pdf
[1286] National Response to South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 03 June 2008. http://llnw.creamermedia.co.za/articles/attachments/10986_nationalresponse_sa_electricity1.pdf
[1287] State of the Nation Address of the President of South Africa, Thabo Mbeki: Joint Sitting of Parliament, The Presidency, 08 February 2008. Date of Access: 03 June 2008. http://www.info.gov.za/speeches/2008/08020811021001.htm
[1288] Presidential Joint Working Group on Electricity, The Presidency, 29 February 2008. Date of Access: 03 June 2008. http://www.thepresidency.gov.za/main.asp?include=president/pr/2008/pr0229842.htm
[1289] National Response to South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 03 June 2008. http://llnw.creamermedia.co.za/articles/attachments/10986_nationalresponse_sa_electricity1.pdf

the Minister of Finance, Trevor Manuel, recognized the opportunity to shift the structure of the economy towards greater energy efficiency as future economic growth cannot be built on the same energy systems used today.[1290] Similarly, in his budget vote speech on 15 May 2008, Alec Erwin, the Minister of Public Enterprises, stressed that the challenge of electricity requires not only to double production capacity but also to take into account the need to reduce carbon emissions.[1291]

To address the issue of clean fuels, South Africa has finalized its Industrial Biofuels Strategy in December 2007.[1292] Aware of the possible environmental and social impacts of employing food crops as input for fuel, the government has banned the use of maize for ethanol,[1293] although this does not exclude the possibility of its being used in the case of a surplus production of maize.[1294] Yet, given the vagueness of the final draft of the Biofuels strategy, critics such as Citizens United for Renewable Energy and Sustainability are not convinced that the strategy will lead to effective implementation.[1295]

Beyond mere political statements, South Africa has taken first steps to support its renewable and clean energy targets fiscally. In his budget speech, Trevor Manuel announced the introduction of a new levy on the sale of electricity generated from non-renewable sources, at a rate of 2 cents per kWh, to be collected from electricity producers. Furthermore, the 2008-2009 budget allocates R2 billion to renewable energy projects over the next three years.[1296] The Department for Minerals and Energy (DME) announced that it will provide R4 million to the "renewable energy subsidy office".[1297] Although the launch of a biogas project implemented by METHCAP on 27 December 2007 has been referred to as sign of success of this subsidisation project,[1298] the

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[1290] Budget Speech 2008 by the Minister of Finance, Trevor A Manuel, National Treasury, 20 February 2008. Date of Access: 03 June 2008.
http://www.info.gov.za/speeches/2008/08022016151001.htm
[1291] Minister of Public Enterprises Alec Erwin's Budget Vote Speech 2008, African Energy News Review, 15 May 2008. Date of Access: 04 June 2008.
http://www.energynews.co.za/web_main/article.php?story=20080515034842668
[1292] Transcript of Post-Cabinet briefing, Government Communications, (Pretoria), 06 December 2007. Date of Access: 03 December 2008.
http://www.info.gov.za/speeches/2007/07120616151003.htm
[1293] Biofuels Industrial Strategy of the Republic of South Africa, Department of Minerals and Energy, (Pretoria), December 2007. Date of Access: 27 December 2007.
http://www.dme.gov.za/pdfs/energy/biofuels_indus_strat.pdf
[1294] Door not closed for the production of bio-ethanol from maize, Department of Agriculture, (Pretoria), 14 December 2007. Date of Access: 03 December 2008.
http://www.info.gov.za/speeches/2007/07122010151001.htm
[1295] Biofuels strategy should do more for employment, rural ownership, Engineering News, (Johannesburg), 04 March 2008. Date of Access: 04 June 2008.
http://www.engineeringnews.co.za/article.php?a_id=128425
[1296] Budget Speech 2008 by the Minister of Finance, Trevor A Manuel, National Treasure, 20 February 2008. Date of Access: 03 June 2008.
http://www.info.gov.za/speeches/2008/08022016151001.htm
[1297] Budget Speech 2008 by the Minister of Finance, Trevor A Manuel, National Treasure, 20 February 2008. Date of Access: 03 June 2008.
http://www.info.gov.za/speeches/2008/08022016151001.htm
[1298] Speech by Ms BP Sonjica, Minister of Minerals and Energy at PetroSA biogas to Electricity Project launch, Department of Minerals and Energy, 28 September 2007. Date of Access: 27 December 2007. http://www.info.gov.za/speeches/2007/07101016151003.htm

Annual Report of the DME indicates certain problems with the fund.[1299] However, no significant action has been taken to identify the problem and remedy the situation.[1300]

With respect to liquid fuels, the Ministry of Finance raised the biodiesel fuel tax concession from 40% to 50%, and reiterated that bioethanol will remain outside the fuel tax net, although subject to VAT at the standard rate.[1301] Non-governmental observers such as South Africa's World Wildlife Fund[1302] and *Polity* lauded Trevor Manuel for the new line of thinking indicated in his budget speech.[1303] However, these commentators noted that the current budget was not yet reflecting this new policy approach.

Indeed, South Africa's energy supply will be predominantly coal-based for the upcoming decades, as the Minister of Minerals and Energy stressed at the Carbon Sequestration Leadership Forum on 14 April 2008.[1304] Yet South Africa has shown a commitment to curb negative environmental impacts associated with coal fired power plants. South Africa's coal-bed methane firm GascoSA, partly owned by the Central Energy Fund (CEF), is planning to spend R1.1 billion for coal-bed methane extraction.[1305] In addition, the Minister of Minerals and Energy announced in April that Eskom's next two coal-fired electricity plants will be supercritical, and thus of higher efficiency than the current fleet of power stations.[1306]

[1299] According to the report, an under-spending of 1 % of the department's budget is mainly due to the unspent amount from vacancies and delays experienced in the payment of renewable energy subsidies, as a result of applicants not concluding their applications on time. Source: Annual Report 2006/07, Department of Minerals and Energy, 2007. Date of Access: 27 December 2007.
http://www.info.gov.za/annualreport/2006/dme_annual_rpt_06-07.pdf

[1300] Finance for renewable energy projects, Department of Minerals and Energy, 2006. Date of Access: 03 January 2008. http://www.dme.gov.za/energy/renew_finnace.stm

[1301] Budget Speech 2008 by the Minister of Finance, Trevor A Manuel, National Treasure, 20 February 2008. Date of Access: 03 June 2008.
http://www.info.gov.za/speeches/2008/08022016151001.htm.

[1302] Wanted: an efficiency champion, Mail & Guardian Online, 25 January 2008. Date of Access: 03 June 2008.
http://www.mg.co.za/articlePage.aspx?articleid=330579&area=/insight/insight__national/

[1303] Budgeting for climate change, Polity, 21 March 2008. Date of Access: 04 June 2008.
http://www.polity.org.za/article.php?a_id=128773

[1304] Opening speech by the Minister of Minerals and Energy, Ms Buyelwa Sonjica, at the Carbon Sequestration Leadership Forum (CSLF), held at the Southern Sun Hotel, Strand Street, Cape Town, Department of Minerals and Energy, 14 April 2008. Date of Access: 03 June 2008.
http://www.search.gov.za/info/previewDocument.jsp?dk=%2Fdata%2Fstatic%2Finfo%2Fspeeches%2F2008%2F08041510151001.htm%40SpeechesandStatements&q=(+((sonjica)%3CIN%3ETitle)+)+%3CAND%3E(+Category%3Cmatches%3Es+)&t=B+Sonjica%3A+Carbon+sequestration+leadership+forum

[1305] Methane explorer to spend R1.1bn in next 18 months, Mining Weekly, (Johannesburg), 13 December 2007. Date of Access: 28 December 2007.
http://www.miningweekly.co.za/article.php?a_id=123542

[1306] Opening speech by the Minister of Minerals and Energy, Ms Buyelwa Sonjica, at the Carbon Sequestration Leadership Forum (CSLF), held at the Southern Sun Hotel, Strand Street, Cape Town, Department of Minerals and Energy, (Pretoria), 14 April 2008. Date of Access: 03 June 2008.
http://www.search.gov.za/info/previewDocument.jsp?dk=%2Fdata%2Fstatic%2Finfo%2Fspeeches%2F2008%2F08041510151001.htm%40SpeechesandStatements&q=(+((sonjica)%3CIN

Beyond fiscal policy, the energy crisis has spurred the opening of the energy market[1307] for Independent Power Providers (IPPs) and cogeneration projects.[1308] As a first step, cabinet decided in September 2007 that Eskom should procure 30 % of its power from IPPs,[1309] a move that has been welcomed as providing an unprecedented opportunity for the renewable-energy industry in South Africa.[1310] While this move remained until recently largely rhetorical due to the absence of a feed-in tariff structure, the increased urgency of the energy crisis has prompted the DME and National Electricity Regulator of South Africa (NERSA) to actively work on a tariff regime in January 2008.[1311] Yet, despite reports on various calls for and submission of bids under cogeneration and IPP Projects,[1312] it appears that large uncertainties remain with respect to investment security and actual pricing policies of Eskom.[1313] Nevertheless, first projects are underway, such as the pilot wind project at Darling, built under an IPP scheme and opened by Minister Sonjica in May 2008, which will provide lessons for a 100 MW wind farm, for which Eskom signed a financing agreement with the French development agency Agence Française de Développement (AFD).[1314]

To identify new options for renewable and clean energy, South Africa has embarked on various research projects. NERSA is currently conducting a study to establish how to create a favourable environment for investment in renewable power generation.[1315] The South African Energy Research Institute

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%3ETitle)+)+%3CAND%3E(+Category%3Cmatches%3Es+)&t=B+Sonjica%3A+Carbon+sequestration+leadership+forum

[1307] The monopoly position of Eskom has been seen as one of the major obstacles to the expansion of renewable and alternative energies in South Africa. Source: Energy crisis? What energy crisis?, Mail & Guardian Online, 25 January 2008. Date of Access: 03 June 2008. http://www.mg.co.za/articlePage.aspx?articleid=330574&area=/insight/insight__economy__business/

[1308] IFM's planned SA cogen plant to contribute to lower greenhouse gas emissions, Mining Weekly, 5 June 2008. Date of Access: 05 June 2008. http://www.miningweekly.com/article.php?a_id=135012

[1309] SA reassures energy investors, South Africa.Info, (Houghton), 07 September 2007. Date of Access: 27 December 2007. http://www.southafrica.info/doing_business/investment/incentives/electricity-070907.htm

[1310] Eskom blowing hotter on large-scale wind-energy prospects, Engineering News, 13 December 2007. Date of Access: 29 December 2007. http://www.engineeringnews.co.za/article.php?a_id=123647

[1311] National Response to South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 03 June 2008. http://llnw.creamermedia.co.za/articles/attachments/10986_nationalresponse_sa_electricity1.pdf

[1312] Eskom rejected large cogeneration proposals until this year, African Energy News Review, 05 April 2008. Date of Access: 04 June 2008. http://www.energynews.co.za/web_main/article.php?story=20080405001813790

[1313] Feed-in tariff needed to support investment in electricity generation, African Energy News Review, 25 March 2008. Date of Access: 04 June 2008. http://www.energynews.co.za/web_main/article.php?story=20080325130721419

[1314] Energy Minister launches South Africa's first wind farm, African Energy News Review, 25 May 2008. Date of Access: 04 June 2008. http://www.energynews.co.za/web_main/article.php?story=20080525193517789

[1315] NERSA looks at ways to increase renewable energy investment, African Energy News Review, 22 April 2008. Date of Access: 03 June 2008. http://www.energynews.co.za/web_main/article.php?story=20080422183919815

(SANERI) is planning to compile a wind atlas to guide investment into wind farms and will do further research into locally suitable wind turbines in the future.[1316] Furthermore, SANERI has initiated a project to develop a Carbon Dioxide Geological Storage Atlas of South Africa whose objective is to locate, and characterize potential carbon storage sites.[1317]

In conclusion, renewable and clean energies have not only become more visible on South Africa's government agenda, but a few fiscal and economic policies are a first step to create a more favourable environment for investment to promote less emission intensive energy production. Nevertheless, these moves are somewhat accidental, having been spurred mostly by the energy crisis rather than actual climate change considerations with the consequence that major emphasis is still placed on coal and nuclear energy expansion.[1318] Consequently, South Africa is awarded a "work in progress."

Analyst: Marie Karaisl

South Africa	**Score**
2C. Promote Less Emission-Intensive Energy Consumption	**0**

The South African government has taken substantial steps towards promoting less emission intensive energy consumption. These steps have been significantly accelerated due to chronic energy shortages and unprecedented levels of electricity 'load shedding', which resulted in the announcement of a national electricity emergency programme by Public Enterprises Minister Alec Erwin and Minerals and Energy Minister Buyelwa Sonjica on 25 January 2008.[1319] Alongside capacity expansion initiatives, the emergency programme outlined immediate, medium, and long term demand-side interventions aimed at reducing energy consumption and improving energy efficiency in

[1316] Eskom blowing hotter on large-scale wind-energy prospects, Engineering News, 13 December 2007. Date of Access: 29 December 2007.
http://www.engineeringnews.co.za/article.php?a_id=123647
[1317] Opening speech by the Minister of Minerals and Energy, Ms Buyelwa Sonjica, at the Carbon Sequestration Leadership Forum (CSLF), held at the Southern Sun Hotel, Strand Street, Cape Town. Department of Minerals and Energy, 14 April 2008. Date of Access: 04 June 2008.
http://www.search.gov.za/info/previewDocument.jsp?dk=%2Fdata%2Fstatic%2Finfo%2Fspeeches%2F2008%2F08041510151001.htm%40SpeechesandStatements&q=(+((sonjica)%3CIN%3ETitle)+)+%3CAND%3E(+Category%3Cmatches%3Es+)&t=B+Sonjica%3A+Carbon+sequestration+leadership+forum
[1318] National Response to South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 03 June 2008.
http://llnw.creamermedia.co.za/articles/attachments/10986_nationalresponse_sa_electricity1.pdf
[1319] Finally, a 'ration-al' response; Power Marshall plan revealed, The Independent on Saturday (Johannesburg), 26 January 2008. Date of access: 11 June 2008.
http://www.tios.co.za/index.php?fSectionId=3008&fRequestedUrl=%2Findex.php%3FfArticleId%3D4223560

South Africa.[1320] While the energy crisis was clearly the primary motivation for these interventions, they have nevertheless constituted a significant and wide-ranging policy package, which has begun to decouple developmental priorities and universal electrification plans from increasing emission intensive energy demands.

The immediate response to the energy crises on the part of Eskom (the national power utility) and the government has been a stabilisation programme aimed at an electricity load reduction of 10% across all sectors.[1321] In order achieve this aim, electricity load shedding has been combined with voluntary electricity rationing among municipalities, industrial and large power users. Also, some demand reducing incentives have been introduced.[1322] One such incentive, a new tax on the "sale of electricity not generated from renewable sources",[1323] has been described as South Africa's first carbon tax,[1324] and was announced in the budget speech on 20 February by Finance Minister Trevor Manuel. Consumers who meet their 10% reduction targets would not be affected by the tax. Another incentive was a guarantee by the power utility Eskom that municipalities which met their targets would be taken off load shedding schedules.[1325]

The second phase of the government's response to the power crises, the Power Conservation Programme (PCP), is due to be launched on 01 July 2008 pending further stakeholder deliberations. These deliberations are being largely coordinated by the newly set up National Electricity Response Team (NERT).[1326] The PCP aims to curb wasteful energy usage and achieve an overall energy savings target of 10-15% over time based on sector specific

[1320] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of access: 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf

[1321] MPs to meet on energy crisis. The Cape Times (Cape Town), 30 January 2008. Date of access: 11 June 2008. http://www.capetimes.co.za/index.php?fSectionId=3235&fRequestedUrl=%2Findex.php%3FfArticleId%3D4229434

[1322] Inquiry into the national electricity supply shortage and load shedding: Report by the national regulator. The National Energy Regulator of South Africa (NERSA), 12 May 2008. Date of Access: 11 June 2008. http://www.nersa.org.za/documents/electricity/LSEnergyRegulatorReportByELS14May2008V3Rev8SSMFinalpdf.pdf

[1323] Budget Speech by the Minister of Finance, Trevor A Manuel. 20 February 2008. Date of Access: 11 June 2008. http://www.info.gov.za/speeches/2008/08022016151001.htm

[1324] SA's First carbon tax sets precedent. The Star (South Africa) Business report. 21 February 2008. Date of Access: 11 June 2008. http://www.busrep.co.za/index.php?fSectionId=&fArticleId=4265871

[1325] Incentive to reduce power consumption. The Mercury (South Africa). 21 April 2008. Date of Access: 11 June 2008. http://www.themercury.co.za/index.php?fSectionId=2875&fRequestedUrl=%2Findex.php%3FfArticleId%3D4365137

[1326] NERT includes representatives from the Department of Public Enterprises, Business Unity South Africa (Busa), the National Energy Regulator of South Africa (Nersa), Eskom, The South African Local Government Association (SALGA), The Department of Trade and Industry, organised labour and the Presidency. Inquiry into the national electricity supply shortage and load shedding: Report by the national regulator. The National Energy Regulator of South Africa (NERSA), 12 May 2008. Date of Access: 11 June 2008. http://www.nersa.org.za/documents/electricity/LSEnergyRegulatorReportByELS14May2008V3Rev8SSMFinalpdf.pdf

power rationing.[1327] Exact details of the programme will be published in July, but rationing will likely be enforced by penalty tariffs for those who don't meet savings targets,[1328] temporary cut-offs for repeat offenders,[1329] and by limiting the number of tokens that pre-paid meter users are allowed to purchase.[1330] In the medium term, the installation of smart meters in homes will allow consumption to be measured remotely, and allow the electricity quota system to be more efficiently enforced.[1331] Legally the PCP will be made enforceable through amendments to the environmental regulation act.[1332]

The PCP will run in parallel with an acceleration of Eskom's Demand-side Management (DSM) Programme. On 20 February, Finance Minister Trevor Manuel announced R2bn over the next three years "to support programmes aimed at encouraging more efficient use of electricity generation from renewable sources, installation of electricity saving devices and co-generation".[1333] This figure is likely to increase significantly as the government and stakeholders have indicated a need to further fund Eskom's DSM programme in order to lessen electricity price hikes.[1334] Even before the launch of the electricity emergency programme in January, Eskom's R10 billion demand-side management programme had been stepped up to include a R2 billion project to subsidise the installation of solar water heaters in residential homes, and an expansion of their compact fluorescent light bulbs (CFL) exchange programme with the distribution of 4.1 million energy saving light-bulbs in the KwaZulu-Natal region.[1335] Following the government's electricity emergency response, a ban on incandescent light bulbs was fast-tracked in March 2008.[1336] In May, Eskom increased rebates to the

[1327] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access : 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf
[1328] Incentive to reduce power consumption. The Mercury (Johannesburg). 21 April 2008. Date of Access: 11 June 2008. http://www.themercury.co.za/index.php?fSectionId=2875&fRequestedUrl=%2Findex.php%3FfArticleId%3D4365137
[1329] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf
[1330] Home power rationing looms, Sunday Times (Johannesburg), 17 February 2008. Date of Access: 11 June 2008. http://www.thetimes.co.za/News/Article.aspx?id=707776
[1331] Home power rationing looms, Sunday Times (Johannesburg), 17 February 2008. Date of Access: 11 June 2008. http://www.thetimes.co.za/News/Article.aspx?id=707776
[1332] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf
[1333] Budget Speech by the Minister of Finance, Trevor A Manuel. 20 February 2008. Date of Access: 11 June 2008. http://www.info.gov.za/speeches/2008/08022016151001.htm
[1334] Draft Nedlac Agreement on the Electricity Emergency Response: National Stakeholder Summit on Electricity. 16 May 2008. Date of access: 11 June 2008. http://www.info.gov.za/issues/energy/summit_draft_agreement.pdf Eskom Could get R30bn boost, Business Report (Johannesburg), 17 April 2008. Date of Access: 11 June 2008. http://www.busrep.co.za/index.php?fArticleId=4358222
[1335] Eskom Distributes Energy-Saving Light Bulbs, Biz Community, 01 November 2007. Date of Access: 04 January 2008. http://www.bizcommunity.com/Article/196/179/19354.html.
[1336] Move over Edison's incandescent light bulbs, in come energy-savers, Cape Times (Cape Town), 17 March 2008. Date of Access: 11 June 2008. http://www.capetimes.co.za/index.php?fSectionId=3235&fRequestedUrl=%2Findex.php%3FfArticleId%3D4307185

installation on solar water heating systems by homeowners.[1337] This has further encouraged capital inflows into the alternative energy project, and formed part of a government initiative to get a million solar water heaters into homes, institutions, and businesses. In addition, in the medium term, the entire hospitality industry is now required to change water heating to solar power with electric back-up.[1338]

In order to encourage and explain energy saving measures, the government launched a nationwide door-to-door campaign awareness campaign called 'Save electricity today so that we have it tomorrow'.[1339] This campaign adds on to those run by Eskom, the Department of Minerals and Energy and the National Energy Efficiency Agency, which have utilized community radio stations in all South African languages, TV, and printed media for the same purpose.[1340]

In the building sector, the green-building convention on 8-10 November 2007 in Pretoria was the first of its kind in ten years, and brought together various professionals, international experts, and governmental representatives to deliberate on how to make the South African construction industry more aware of energy efficient practices.[1341] At the convention, Elsa Du Toit, director of energy efficiency at the Department of Minerals unveiled the new South African Bureau of Standards (SABS) energy efficient buildings standards, a work ten years in the making. As these standards are to become part of the Department of Trade and Industry's national building regulations, this marks a significant step towards increasing the energy efficiency of new buildings in South Africa. At the convention Du Toit also noted continued progress on appliance labeling initiatives and the proposed "greening" of all government buildings.[1342] In line with this, energy audits on government buildings have now been expanded, and South African President Thabo Mbeki has called for a "naming and shaming" of all government buildings which fail to cut energy consumption in his state of the nation address on 8 February.[1343]

[1337] Eskom Offers Homeowners Rebates for Solar Initiatives. BuaNews Online. 21 May 2008. Date of access: 11 June 2008. http://www.buanews.gov.za/view.php?ID=08052110451003&coll=buanew08

[1338] Finally, a 'ration-al' response; Power Marshall plan revealed.The Independent on Saturday (South Africa), 26 January 2008. Date of access: 11 June 2008. http://www.tios.co.za/index.php?fSectionId=3008&fRequestedUrl=%2Findex.php%3FfArticleId%3D4223560

[1339] Home power rationing looms, Sunday Times (Johannesburg), 17 February 2008. Date of Access: 11 June 2008. http://www.thetimes.co.za/News/Article.aspx?id=707776

[1340] Govt, Eskom Urges, Public to Save Energy, BuaNews, 11 October 2007. Date of Access: 04 January 2008. http://www.buanews.gov.za/rss/07/07101116151008

[1341] Green Building Conference and Exhibition Report, Green Building Resources Centre, Cape Town. Date of Access: 4 January 2008. http://www.greenbuilding.co.za/index.php?option=com_content&task=view&id=6&Itemid=44

[1342] Presentation by Elsa du Toit at the South African Green Building Conference, Department of Minerals and Energy, 08-10 November 2007. Date of Access: 04 January 2008. http://www.greenbuilding.co.za/index.php?option=com_content&task=view&id=162&Itemid=142

[1343] State of the Nation Address of the President of South Africa, Thabo Mbeki: Joint Sitting of Parliament. 8 February 2008. Date of access: 11 June 2008. http://www.info.gov.za/speeches/2008/08020811021001.htm

In the transport sector, the DME and the National Association of Automobile Manufacturers of South Africa (NAAMSA) introduced a fuel economy vehicle label from January 2008,[1344] which will become compulsory from July 2008.[1345] Meanwhile, pilot schemes aimed at reducing car usage and traffic congestion by promoting car-pooling and public transport usage are underway, such as the recently opened public transport and high occupancy vehicle lane between Pretoria and Johannesburg.[1346] In his budget speech, Trevor Manuel allocated a further R11 billion to public transport ahead of the 2010 world cup, and indicated that options were under scrutiny concerning reform of the existing vehicle taxes to encourage fuel efficiency.[1347] Furthermore, plans to make all traffic and street lighting solar powered have been fast-tracked as part of the governments response to the energy crisis.[1348]

Alongside these domestic initiatives, the government has shown a willingness to engage in international cooperation in order to achieve domestic energy consumption goals. The Danish-South African Sustainable Energy Exchange programme held on 23-25 October 2007 is one example. Here, Eskom and CEF representatives, energy companies, and some of the larger municipalities were brought together with Danish experts in industrial and residential energy efficiency technologies and technologies for optimizing energy use in existing industrial plants with the aim of facilitating a "technology exchange" between the two countries.[1349] In formulating a response plan to the energy crisis, the government has drawn heavily from best practice examples around the world. For example, the power conservation is based on a 2005 Energy Sector Management Assistance Programme (ESMAP) report entitled "Implementing Power Rationing in a Sensible Way: Lessons Learned and Best Practices", which cites the energy rationing applied in Brazil in 2001 as best practice.[1350]

[1344] Keynote Address by Buyelwa Sonjica, Minister of Minerals and Energy, Department of Minerals and Energy, Energy Efficiency Campaign Launch, Presidential Guest House, Pretoria, 07 March 2006. Date of Access: 20 January 2008. http://www.dme.gov.za/pdfs/speeches/ee_launch_march06.pdf

[1345] Department of Trade and Industry, Proposed Amendment of the Compulsory Specification for Motor Vehicles of Category M1, Government Gazette, 09 November 2007, Date of Access: 20 January 2008. http://www.puntofocal.gov.ar/notific_otros_miembros/zaf71_t.pdf

[1346] HOV project 'running smoothly', Pretoria News (Pretoria), 15 October, 2007. Date of Access: 04 January 2008. http://www.pretorianews.co.za/index.php?fSectionId=1702&fRequestedUrl=%2Findex.php%3FfArticleId%3D4081395

[1347] Budget Speech by the Minister of Finance, Trevor A Manuel. 20 February 2008. Date of Access: 11 June 2008. http://www.info.gov.za/speeches/2008/08022016151001.htm

[1348] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf

[1349] Sustainable Energy exchange: South Africa – Denmark, Conference Brief, Royal Danish Embassy in South Africa. Date of Access: 05 January 2008. http://www.di.dk/NR/rdonlyres/71130389-346D-434A-805C-7262B0B92DEA/0/SustainableEnergyExchangeProgramme.pdf

[1350] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf

South Africa has long been one of the only developing countries with a clear public energy efficiency strategy.[1351] Notwithstanding this fact, its strategies to increase the efficiency of domestic energy consumption have previously been almost entirely focused on dealing with chronic energy shortages and preparations for the World Cup in 2010, and have not addressed the gap between rapidly increasing South African energy demands and supply growth.[1352] However, since South African president Thabo Mbeki described the energy crisis as a 'national emergency', the government's approach to promoting less emission intensive energy consumption has changed significantly.[1353] Whilst demand reduction and energy efficiency strategies have been primarily spurred by short term energy shortage concerns, the effects of these polices are substantive and likely to have long term environmental effects. For example, the national response to the electricity emergency outlines the positive affects on climate change the electricity emergency programme is intended to have,[1354] and in his budget speech Finance Minister Trevor Manuel describes the introduction of South Africa's first carbon tax as a "fiscal environmental measure".[1355]

The South African government still has much to do to reduce the emission intensity of domestic energy consumption, and numerous challenges remain. However, based on this analysis, the government has shown clear willingness to embrace energy demand reduction strategies, specified a clear national target for increasing the efficiency of various sectors, taken several significant steps to introduce new and strengthen existing policies and programs that promote more efficient energy use, and encouraged capital inflows to alternative energy projects. As a result South Africa was found to be in full compliance with this commitment.

Analyst: Brendan Carey

[1351] Energy Efficiency Strategy of the Republic of South Africa, Department of Minerals and Energy, March 2005. Date of Access: 04 January 2008. http://www.dme.gov.za/pdfs/energy/efficiency/ee_strategy_05.pdf
[1352] Electricity Demand Rose by 3.8% in Nov quarter, Engineering News, 08 January 2008. Date of Access: 08 January 2008. http://www.engineeringnews.co.za/article.php?a_id=123989
[1353] State of the Nation Address of the President of South Africa, Thabo Mbeki: Joint Sitting of Parliament, 8 February 2008. Date of Access: 11 June 2008. http://www.info.gov.za/speeches/2008/08020811021001.htm
[1354] National Response To South Africa's Electricity Shortage, Department of Minerals and Energy, January 2008. Date of Access: 11 June 2008. http://www.dme.gov.za/pdfs/energy/national_resp_plan.pdf.
[1355] Budget Speech by the Minister of Finance, Trevor A Manuel. 20 February 2008. Date of Access: 11 June 2008. http://www.info.gov.za/speeches/2008/08022016151001.htm.