

**The Bali Action Plan  
And the Road to Copenhagen**

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Energy Independence and Global Warming**

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## The Urgency of the Challenge, and the Role of the United States

Substantial scientific evidence indicates that an increase in the global average temperature of more than two degrees Celsius (°C) above pre-industrial levels poses severe risks to natural systems and human health and well-being. Sustained warming of this magnitude could, for example, result in the extinction of many species and extensive melting of the Greenland and West Antarctic ice sheets—causing long-term global sea level rise of between 12 and 40 feet. In light of this evidence, policymakers in the European Union have called for a long-term goal of limiting warming to 2°C above pre-industrial levels.

The world has already experienced a temperature increase of about 0.8 degrees C above pre-industrial levels, and the Intergovernmental Panel on Climate Change notes that about 0.6 degree C of additional warming is already unavoidable due to past emissions. Scientific studies indicate that, to have at least a 50-50 chance of preventing temperatures from rising above this level, we must stabilize the concentration of heat-trapping gases in the atmosphere at or below 450 parts per million CO<sub>2</sub>-equivalent. To meet this target, worldwide cumulative emissions of heat-trapping gases must be limited to approximately 1,700 gigatons (Gt) CO<sub>2</sub>eq for the period 2000–2050—of which approximately 330 GtCO<sub>2</sub>eq has already been emitted. Staying within this 1,700 GtCO<sub>2</sub>eq “global cumulative emissions budget” will require aggressive reductions in emissions of both industrialized and developing nations.

Recent analysis by UCS<sup>1</sup> determines that the United States’ share of this global emissions budget ranges from 160 to 265 GtCO<sub>2</sub>eq for the period 2000–2050, of which approximately 45 GtCO<sub>2</sub>eq has already been emitted, and that even assuming aggressive assumptions about reductions by other nations, the United States should reduce its emissions by *at least* 80 percent below 2000 levels by 2050.

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<sup>1</sup> How to Avoid Dangerous Climate Change: A Target for US Emissions, September, 2007, available at [http://www.ucsusa.org/assets/documents/global\\_warming/emissions-target-report.pdf](http://www.ucsusa.org/assets/documents/global_warming/emissions-target-report.pdf)

The United States has agreed in principle to work with more than 180 other nations under the United Nations Framework Convention on Climate Change to bring about the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic [human-caused] interference with the climate system.” Though the federal government has done little to live up to that agreement thus far, there is now growing momentum to pursue deep reductions in emissions of carbon dioxide (CO<sub>2</sub>) and other heat-trapping gases that cause global warming. California, Florida, Hawaii, Minnesota, New Jersey, Oregon, and Washington have all enacted laws or established policies setting global warming pollution reduction targets, while states in the Northeast, the West, and, most recently, the Midwest have signed agreements to achieve regional emissions reduction targets. Legislation setting declining caps on US global warming emissions has been reported out of the Senate Environment and Public Works Committee, and 176 Representatives have co-sponsored such legislation in the House. More and more business leaders are calling for mandatory caps on U.S. global warming pollution, and climate change and energy security are already major issues in the 2008 presidential campaign.

### **The Spirit of Bali**

During the first two weeks in December, the nations of the world gathered in Bali, Indonesia for the 13<sup>th</sup> Conference of the Parties to the UNFCCC, as well as the 3<sup>rd</sup> meeting of the Parties to the Kyoto Protocol. While there were a number of issues on the agenda, the major focus of the negotiations was on the nature of the multilateral framework needed to address climate change after 2012, when the Kyoto Protocol’s first commitment period expires.

Recall that in the late 1990s, companies opposed to US ratification of the Kyoto Protocol ran television commercials with the theme “It’s not global and it won’t work,” referring to the fact that under Kyoto, only industrialized countries took on binding

emissions limitation or reduction targets. In my view, the most important outcome of the Bali negotiations is the full recognition that when it comes to the future of the climate change treaty regime, the problem *is* global, and we *all* must have a stake in making it work. In Bali, the world saw the dismantling of “the Berlin wall,” the famous phrase in the 1995 Berlin Mandate that launched negotiations resulting two years later in the Kyoto Protocol prohibiting “any new commitments for Parties not included in Annex 1” to the Framework Convention.

The President of Indonesia, Dr. Susilo Bambang Yudhoyono, captured it well in his keynote address to the high-level segment of the Bali COP on December 12<sup>th</sup>:

Developing countries too must do our part. Developing countries must commit to a path of sustainable development by mainstreaming the environment in our national development plans. Those blessed with forests must do all they can to preserve and expand their forest cover. Developing countries experiencing high economic growth must avoid the mistakes of earlier industrial nations by planning a long-term low-carbon development. Developing countries can also take advantage of a rapidly expanding carbon market to harness opportunities for the socio-economic development.

Both developed and developing countries can work together to mainstream mitigation and adaptation into their national development strategies. Both can learn how to achieve higher economic growth without producing higher emissions. Both can work to enhance the use of non-fossil energy including renewable energy. And both can work together to help nations, including low-lying island nations, that are most vulnerable to the impacts of global warming.

The bottom line is that we all must do something differently, and do something more.

The Indonesian president's remarks capture well the "spirit of Bali," a clear move towards collaboration between North and South, and away from the confrontation and polarization that has all too long characterized negotiations on this issue. As much as all of the decisions made and all of the processes launched in Bali, this new spirit is the real watershed. For we know, all of us, the magnitude of the challenge ahead, and we understand that only through true collaboration can we come to grips with the threat posed by global warming. We can no longer afford (not that we ever could) to point fingers at each other and say "your end of the boat is sinking." For the fact is, we are all in this together. As the new Australian Prime Minister, Kevin Rudd, put it in his remarks to the high-level segment last Wednesday:

The community of nations must reach agreement. There is no Plan B. There is no other planet any of us can escape to. We only have this one. And none of us can do it alone. So let's get it right. The generations of the future will judge us harshly if we fail. But I am optimistic that with clarity of purpose, clear-sightedness, courage and commitment we can prevail.

### **The Bali Action Plan**

Because of the constructive efforts in Bali of countries like China, Brazil, Indonesia, and South Africa, and the last-minute acquiescence of the United States, negotiations have been launched that will include discussion of "nationally appropriate mitigation actions by developing country Parties...supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner." Simultaneously, negotiations over extending and deepening the emissions reduction obligations of most

industrialized countries under the Kyoto Protocol will continue in the Ad Hoc Working Group launched at the first meeting of the Kyoto Parties in 2005 in Montreal, and negotiations over post-2012 emissions reduction commitments for the United States and other Annex 1 countries that have not ratified the Kyoto Protocol will occur in the Ad Hoc Working Group on Long-Term Cooperative Action created in Bali last Saturday.

The decision outlining the next two years of negotiations on industrialized country reduction commitments under Kyoto notes that the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change “indicates that global emissions of greenhouse gases (GHGs) need to peak in the next 10 to 15 years and be reduced to very low levels, well below half of levels in 2000 by the middle of the twenty-first century in order to stabilize their concentrations in the atmosphere at the lowest levels assessed by the IPCC to date in its scenarios.” It also notes that “the AR4 indicates that achieving the lowest levels assessed by the IPCC to date and its corresponding potential damage limitation would require Annex I Parties as a group to reduce emissions in a range of 25 to 40 per cent below 1990 levels by 2020,” and that “achievement of these reduction objectives by Annex I Parties would make an important contribution to overall global efforts required to meet the ultimate objective of the Convention as set out in its Article 2.”

In the negotiations over the Convention track decision, the United States fought hard to keep any such specific reference to quantitative emissions reductions for industrialized countries out of the preambular text. In the intense working group negotiations over the two days before the final COP plenary on Saturday, major developing countries had indicated a willingness to accept language in the decision referring to the need for global emissions to peak in the next 10 to 15 years and to be reduced by 50 percent or more by mid-century. This would have been a significant achievement, given that achieving such a goal would require substantial reductions in projected emissions for big developing countries like China, India, and Brazil, along with deep cuts in emissions

by industrialized countries. But these countries made clear they could only support such a goal if it was accompanied by the language on 25 to 40 percent reductions in emissions by industrialized countries by 2020, which the United States was unwilling to do, falsely claiming that inclusion of such a range would “prejudge” the outcome of the negotiations. Instead of such explicit recognition of the scale of emissions reductions needed to avoid the worst impacts of global warming, the final decision merely includes a footnote referring to the relevant IPCC text on emissions scenarios. In my view, this was a significant missed opportunity.

While the subparagraphs on mitigation actions by developed and developing countries generated the most intense debate in Bali, there are a number of other notable aspects, or “building blocks,” included in the Bali Action Plan.

### *Adaptation*

No matter how successful the world proves to be in limiting future greenhouse gas emissions, there will be significant impacts of climate change, particularly on vulnerable developing countries. The two-year negotiations launched in Bali will include discussion of ways to foster “international cooperation to support urgent implementation of adaptation actions, including through vulnerability assessments, prioritization of actions, financial needs assessments, capacity-building and response strategies, integration of adaptation actions into sectoral and national planning, specific projects and programmes, means to incentivize the implementation of adaptation actions, and other ways to enable climate-resilient development and reduce vulnerability of all Parties.” Estimates by the World Bank, Oxfam and others indicate that upwards of \$50 billion a year is likely to be needed for developing country adaptation actions; this is about two orders of magnitude higher than the resources currently available for such efforts. Identifying strategies to generate dedicated, sustained funding for adaptation strategies will be one of the central challenges of the next two years of negotiations.

## *Technology*

Everyone acknowledges that development, transfer, and accelerated deployment of clean energy, transportation, and other technologies is key to meeting the climate change challenge, and the United States and other industrialized countries took on obligations in this area when we ratified the Framework Convention. There is widespread agreement that much more must be done to carry out these obligations, together with those on financing and capacity building; the central issue in the dramatic plenary debate on Saturday was whether industrialized countries would accept language proposed by India stating that actions by developed countries in this regard must be “measurable, reportable and verifiable,” the same criteria that the United States and others wanted applied to mitigation actions by developing countries.

When the European Union indicated its support for this amendment, Japan neither supported nor opposed it, and Australia and Canada stayed silent, Undersecretary Paula Dobriansky was alone in her opposition to India’s proposal. Even Saudi Arabia, normally a staunch US ally in these negotiations, took the floor to state their support for the Indian language. It was this utter isolation, in full view of civil society and the world’s media, which led the United States to reverse field and accept the consensus on the floor.

Development of concrete new initiatives on cooperative research and development of climate-friendly technologies, on “effective mechanisms and enhanced means for the removal of obstacles to, and provision of financial and other incentives for, scaling up of the development and transfer of technology to developing country Parties,” and on “ways to accelerate deployment, diffusion and transfer of affordable environmentally sound technologies” will be at the heart of negotiations over the next two years.



## *Finance*

A report prepared by the UNFCCC Secretariat<sup>2</sup> estimates that “globally, \$200–210 billion investment and financial flows from all sources (private and public, domestic and international) will be needed in 2030 to bring greenhouse gas (GHG) emissions back to the current level. About USD 65 billion of this total will be needed in the developing countries. The investment involves the energy, industry, building, waste, agriculture and forestry sectors.” Obviously, greater flows would be needed to facilitate absolute global emissions reductions over this same timeframe, as would clearly be necessary to achieve the 50 percent reduction in global emissions referred to earlier.

The report notes that while investment flows of this magnitude “are large compared with the funding currently available under the Convention and its Kyoto Protocol,” they are “small in relation to their share in estimated global gross domestic product (0.3–0.5 per cent) and global investment (1.1–1.7 per cent) in 2030.”

The Bali Action Plan calls for “enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation,” including “new and additional resources” from developed countries, “positive incentives for developing country Parties for the enhanced implementation of national mitigation strategies,” and “mobilization of public- and private-sector funding and investment, including facilitation of carbon-friendly investment choices.” These could include efforts to link sectoral, policy-based and other mitigation commitments by developing countries to the growing carbon markets in industrialized countries, reform of lending practices at the World Bank and other multilateral development banks, and ways to leverage private sector investments in climate-friendly technology.

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<sup>2</sup> “Review of the experience of international funds, multilateral financial institutions and other sources of funding relevant to the current and future investment and financial needs of developing countries,” November 2007, available at <http://unfccc.int/resource/docs/2007/tp/04.pdf>

## *Deforestation*

The inclusion of reducing emissions from deforestation and forest degradation (or REDD) in the Bali Roadmap was a major accomplishment. REDD accounts for an estimated 20% of global carbon dioxide emissions – as much as the total emissions of the United States or China, and more than those from every car, truck, ship, plane and train on planet Earth. The Kyoto Protocol did not address reductions in emissions from deforestation, allowing credits only for tree planting, not for protecting existing forests. Now, the world has decided that the new post-2012 agreement will include the quantitatively much more important -- though politically more complicated -- work of protecting tropical forests as well.

It is fitting that Indonesia -- the world's fourth largest emitter of greenhouse gases, more than 80% from deforestation -- was the setting for this breakthrough. There is a broadly shared understanding that REDD can contribute greatly needed reductions in emissions at a relatively low cost. UCS analyses<sup>3</sup> indicate that stopping tropical deforestation would provide 6-14% of the total reductions in heat-trapping emissions that are needed by mid-century to keep global average temperatures from rising more than 2 degrees Celsius (3.6 F) above pre-industrial levels. But a central tenet of inclusion of REDD in the post-2012 agreement is that developed countries must commit to emission reduction targets that are sufficiently deep to ensure needed reductions in both deforestation and energy and industrial sector emissions.

There's much work to do over the next two years in negotiations over this issue. Several parts of the Bali text on REDD are either disappointingly vague on details or

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<sup>3</sup> "REDD and Avoiding Dangerous Climate Change: Science and Policy Options for the U.S.," presentation of Dr. Peter Frumhoff, UCS Director of Science and Policy, at the Kathryn Fuller Science for Nature Fund 2007 Science for Nature Symposium, October 18, 2007. Available at [www.worldwildlife.org/fellowships/2007pdfs/session2-FrumhoffREDDWWF10-18-2007final.pdf](http://www.worldwildlife.org/fellowships/2007pdfs/session2-FrumhoffREDDWWF10-18-2007final.pdf)

conversely, introduce extraneous elements for consideration that distract attention from the key components. The discussion of funding mechanisms, for example, speaks only of "policy approaches and positive incentives," though nearly everyone understands that inclusion of the carbon market as a fundamental element of the final agreement is essential, to have a realistic chance of providing the many billions of dollars annually that it'll take to halt deforestation. Forest degradation -- activities like selective logging or understory fires that release carbon dioxide without destroying the forest canopy -- is included in the decision, but the technical problems of monitoring it accurately are more challenging than those for deforestation, which removes the canopy and thus can be seen easily on satellite images. The inclusion in the text of "conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" are all laudable goals, but pose different problems from reducing emissions from deforestation, and will make the next two years of negotiations considerably more complicated.

Still, this shouldn't detract from the fact that the issue of preserving tropical forests is now part of the negotiations over the post-2012 treaty regime. This will be remembered as one of the major achievements of the Bali COP.

### **The Road from Bali**

As important as the substance of the Bali Action Plan is its commitment to an intensive two-year set of negotiations aimed at producing agreement on a comprehensive new post-2012 climate treaty regime by the late 2009 15<sup>th</sup> Conference of the Parties meeting in Copenhagen. Parties agreed to conduct four negotiating sessions a year, up from the current two, and to conduct a mid-course review of progress made at the 14<sup>th</sup> Conference of the Parties meeting next December in Poznan, Poland.

The job of integrating the outputs of the two negotiating tracks (the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention, and the Ad Hoc Working Group on Further Commitments for Annex 1 Parties under the Kyoto Protocol), is complicated by the fact the largest industrial emitter, the United States, is not a Kyoto party. The clear hope of other countries at the Bali negotiations is that the next U.S. president will be committed to re-engaging the United States fully in the multilateral climate treaty process, and to taking the actions needed to get U.S. greenhouse gas emissions on a downward trend commensurate with that actions of Europe, Japan, and other industrialized nations. If that proves to be the case, the job of deciding whether the post-2012 regime involves amending the Kyoto Protocol, amending the Framework Convention, or creating a new instrument under the Convention will be made easier.

The fact that at the end of the day, the current U.S. administration was unwilling to block negotiations over quantified emission limitation and reduction obligations for the United States and other industrialized countries, together with more aggressive mitigation actions by developing countries, should be seen as a hopeful sign. For while a different U.S. team will be on the field during the second half of the negotiations in 2009, it would be a tragic waste of valuable time if the U.S. strategy for the next year were to be to simply run out the clock.

With the United States stepping back from the brink of blocking the Bali Action Plan last Saturday, the European Union and other countries have signaled a willingness to participate in the next meeting of the U.S. Major Economies process that was launched last September in Washington. The next meetings of that process are scheduled for late January in Honolulu and February in Paris. What the focus of those meetings should be, and how to avoid meeting overload for the countries involved not only in that process, but in the meetings leading up to the July G-8 summit in Hokkaido, Japan as well as the intensified round of negotiations launched in Bali, are important issues that remain to be addressed.

In her speech during the high-level segment, Connie Hedegaard, Minister for Climate and Energy of Denmark – the country that will host the 15<sup>th</sup> meeting of the Conference of the Parties in December 2009 where the new agreement will hopefully be reached – laid out a clear challenge to those of us here in the United States:

It is about time that we act – in a collective, constructive and timely manner. For almost a century, Europe has looked to the United States for leadership and guidance in times of instability and change.

We do so yet again, as we strive to reach a truly comprehensive agreement to combat climate change. But we do so, knowing full well that all countries – not least the largest emitters – share responsibility for the final outcome.

Let us heed her wise words as we move forward from Bali to Copenhagen.