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Climbing the Great Wall : how the interplay between China and the United States will affect mitigation in a Kyoto successor treaty

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**Climbing The Great Wall:
How The Interplay Between China And The United States Will Affect Mitigation In A
Kyoto Successor Treaty**

Elizabeth Dinello¹

Abstract

China and the United States have the ability to radically shape a successor treaty to the Kyoto Protocol. China's placement as a non-Annex I nation under the Kyoto Protocol has had significant negative consequences for climate change, and China is now the top emitter of greenhouse gases in the world. The United States has thus far refused to sign the Kyoto Protocol. China will not sign a Kyoto successor treaty unless the United States is on board and vice versa. If either party is uncooperative in negotiating a successor treaty, there will be no effective treaty. The Kyoto Protocol has in large part failed because of the roles China and the United States have played.

This paper will discuss how the interplay between China and the United States will affect mitigation in a Kyoto successor treaty. This paper argues that China and the United States must agree to reduce greenhouse gas emissions to eighty percent below 1990 levels by 2050. First, this paper will discuss basic climate change science, focusing on what the experts say greenhouse gases (including carbon dioxide) and temperature must be stabilized at as well as the mitigation measures necessary to achieve those stabilization goals. Second, this paper will summarize what happened at the Bali and Poznan conferences and how those two meetings set the stage for Copenhagen in 2009. Third, this paper will outline the necessary framework for mitigation in a Kyoto successor treaty. Fourth, this paper will address the challenges of implementing a Kyoto successor treaty in the United States and in China. Lastly, this paper will discuss how the world, and in particular the United States and China, is reacting and could react to mitigating climate change in light of the current economic crisis. With the recent approval of Todd Stern as the United States Special Envoy for Climate Change and the March 2008 elevation of China's State Environmental Protection Agency into a Cabinet ministry, both nations are now in the position to cooperate and lead the rest of the world in negotiating a successful Kyoto successor treaty.

Introduction

"My dear ones, your generation will face a series of environmental challenges that will dwarf anything any previous generation has confronted," the Udalls wrote to their grandchildren.² They then pointed out that the United States (U.S.) and China are responsible for forty percent of carbon dioxide emissions and that "consequently these two nations have a moral responsibility to be in the forefront of any global campaign to develop new technologies to cut the emissions of this damaging pollutant."³ Stewart Udall, a former Secretary of Interior, "regrettably voted...for the Interstate Highway Program...act[ing] on the shortsighted assumption that cheap oil was super-abundant and would always be available...it haunts America today."⁴ The U.S. has made a big mistake, and now China is following in America's footsteps. Americans are at fault, and we must take responsibility for our actions and make things right. Many rural Chinese strive to emulate the affluent lifestyle of Americans. Wu Yiebing and his wife, Cao Waiping, moved from a rural mountain village to Hanjing, and are

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² Stewart and Lee Udall, *A Message to Our Grandchildren*, HIGH COUNTRY NEWS, March 31, 2008, available at <http://www.hcn.org/issues/367/17613>.

³ *Ibid.*

⁴ *Ibid.*

dependent on their new coal-supported lifestyle: "...they have tasted the rising standard of living from coal-generated electricity and they are hooked, even as they suffer the vivid effects of the damage their new lifestyle creates."⁵ As Zhang Jianyu, program manager of Beijing's Office of Environmental Defense put it, "The fundamental problem is that China is following the path of the United States, and probably the world cannot afford a second United States."⁶

The Kyoto Protocol (Kyoto) has failed. Under Kyoto, developed nations were supposed to reduce their greenhouse gas emissions by five percent below 1990 levels. Not only have developed nations as a whole not reduced their emissions, they have actually *increased* their emissions. Professor Gwyn Prins points out that the European Union (EU), at the helm of Kyoto, actually increased its emissions by ten percent.⁷ In an earlier article Professor Prins and Steve Raynor argued that Kyoto "failed...not just in its lack of success in slowing global warming, but also because it has stifled discussion of alternative policy approaches that could both combat climate change and adapt to its unavoidable consequences."⁸ They insist that the "rational thing to do in the face of a bad investment is to cut your losses and try something different."⁹ In an open letter to Barack Obama, journalist Michael Page points out that "Kyoto is noble but ineffective" and encourages Obama to abandon his cap and trade plan in favor of a tax-and-dividend system.¹⁰ Since Obama has already pledged support for a cap-and-trade system, a carbon tax is unrealistic at this time.

Kyoto has in large part failed because of the roles China and the U.S. have played. Under the Bush administration, the U.S. refused to sign Kyoto. Bush consistently complained that China "was entirely exempted from the requirements in the Kyoto Protocol."¹¹ Bush also argued that "mandatory reductions in emissions will undermine the American economy..."¹² Eight years later, the American economy is in a shambles and the American people are angry—very angry at Mr. Bush. China has continued to follow America's lead in terms of economic development. Significant negative environmental consequences have come with this development. Professor Paul G. Harris argues that "the most profound environmental consequence of these developments is China's contribution to climate change."¹³ Americans have set a horrible example for the Chinese. The U.S. has made the situation even worse by failing to take a leadership role in the global climate change arena and by failing to act at all. Even though the Chinese are racing to catch up to the Americans' affluent lifestyles, and in their race promising to increase carbon emissions to "600 million metric tons in 2010," citizens must remain optimistic that the two countries can come together and end this terrible game of "chicken."¹⁴ As Margaret J. Kim and Robert E. Jones argue, "This global game of 'chicken' is a game that the world cannot afford to play.

⁵ Keith Bradsher & David Barboza, *Pollution from Chinese Coal Casts Shadow Around Globe*, N.Y. TIMES LATE ED., June 11, 2006, at Sec. 1 p. 1.

⁶ N. Bruce Duthu, *Essay: Starbucks in the Forbidden City: Reflections on the Challenges and Opportunities for a U.S.-Chinese Partnership on Environmental Law & Policy*, 8 VT. J. ENVTL. L. 151, 152 (Spring 2007).

⁷ Gwyn Prins, *Time to Ditch Kyoto: the Sequel*, in The Poznan Climate Change Conference Delegates' Book: Final, Oct. 25, 2008, available at <http://sciencepolicy.colorado.edu/prometheus/prins-time-to-ditch-kyoto-the-sequel-4753>.

⁸ Gwyn Prins & Steve Rayner, *Time to Ditch Kyoto*, 449 NATURE 973, 973 (2007).

⁹ *Ibid.*

¹⁰ Michael Le Page, *Time for Change on Climate: an Open Letter to Barack Obama*, NEW SCIENTIST, Dec. 6, 2008, at 20.

¹¹ Erik Eckholm, *China Said to Sharply Reduce Emissions of Carbon Dioxide*, N.Y. TIMES LATE ED., June 15, 2001, at A1.

¹² *The Global Warming Gap*, N.Y. TIMES LATE ED., June 17, 2001, § 4 at 14.

¹³ Paul G. Harris, *China's Road to Destruction: Following the West on Global Warming*, 3 GLOBAL ASIA 88, 89 (2008).

¹⁴ *Ibid.*

While the United States continues to drag its feet, knowing full well that China will not ‘blink first,’ China’s emissions continue to grow at an alarming rate.”¹⁵ As Professor Harris says, “The great challenge, and opportunity, China faces is to chart a development path that doesn’t imitate the destructive example of developed Western countries.”¹⁶ The U.S. and China must call a truce and together lead the world in creating a practical post-Kyoto framework.

This paper will discuss how the interplay between China and the U.S. will affect mitigation in a Kyoto successor treaty. This paper argues that China and the U.S. must agree to reduce greenhouse gas emissions to eighty percent below 1990 levels by 2050.¹⁷ First, this paper will discuss basic climate change science, focusing on what the experts say greenhouse gases (including carbon dioxide) and temperature must be stabilized at as well as the mitigation measures necessary to achieve those stabilization goals. Second, this paper will summarize what happened at the Bali and Poznan conferences and how those two meetings set the stage for Copenhagen in 2009. Third, this paper will outline the necessary framework for mitigation in a Kyoto successor treaty. Fourth, this paper will address the challenges of implementing a Kyoto successor treaty in the U.S. and China. Lastly, this paper will discuss how the world, and in particular the U.S. and China, is reacting and could react to mitigating climate change in light of the current economic crisis. With the recent approval of Todd Stern as the U.S. Special Envoy for Climate Change and the March 2008 elevation of China’s State Environmental Protection Agency into a Cabinet ministry, both nations are now in the position to cooperate and lead the rest of the world in negotiating a successful Kyoto successor treaty.^{18, 19}

Climate Change Science—What The Experts Say

It is generally accepted in the academic community that humans have contributed greatly to global warming and that “Global atmospheric concentrations of CO₂, methane (CH₄) and nitrous oxide (N₂O) have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years.”²⁰ According to the Intergovernmental Panel on Climate Change (IPCC), “In order to stabilise the concentration of GHGs in the atmosphere, emissions would need to peak and decline thereafter. The lower the stabilisation level, the more quickly this peak and decline would need to occur.”²¹ The IPCC stresses that we must take action quickly. The longer it takes us to initiate action, the harder it will be to stabilize greenhouse gas emissions

¹⁵ Margret J. Kim & Robert E. Jones, *China: Climate Change Superpower and the Clean Technology Revolution*, 22 NAT. RESOURCES & ENV’T 9, 13 (Winter 2008).

¹⁶ Harris, *supra* note 12, at 89.

¹⁷ This equates to the stabilization of greenhouse gases between 400 and 450 parts per million (ppm) carbon dioxide-equivalent concentration (ppm carbon dioxide equivalent).

¹⁸ *Appointment of Special Envoy for Climate Change Todd Stern*, U.S. Department of State Website, available at <http://www.state.gov/secretary/rm/2009a/01/115409.htm>.

¹⁹ THOMAS FRIEDMAN, *HOT, FLAT, AND CROWDED—WHY WE NEED a GREEN REVOLUTION—AND HOW IT CAN RENEW AMERICA*, 355 (Farrar, Straus and Giroux 2008). As Friedman notes, “in March 2008 China’s politburo also elevated the status of the State Environmental Protection Agency, a famously toothless watchdog agency, into a full-fledged Cabinet ministry, with more staff and a bigger budget.”

²⁰ IPCC, 2007: Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M.Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, at 2, available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf>.

²¹ IPCC, 2007: *Climate Change 2007: Synthesis Report*, Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Core Writing Team, Pachauri, R.K. and Reisinger, A. (Eds.), IPCC, Geneva, Switzerland, at 66, available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf.

at low levels: “Mitigation efforts over the next two to three decades will have a large impact on opportunities to achieve lower stabilisation levels.”²²

At a 2005 conference hosted by the United Kingdom (UK) Met Office in Exeter, “preliminary findings were that a rise of 3 degrees Celsius (5.4 degrees Fahrenheit) relative to pre-industrial levels may by well past the edge of the comfort zone.”²³ At the Exeter meeting, scientists “strengthened a consensus that a 2 degrees Celsius (3.6 degrees Fahrenheit) warming above pre-industrial levels, or about 1.2 degrees Celsius (2.1 degrees Fahrenheit) above today’s global temperature, is the best goal for climate stabilization.” Both NASA and the IPCC “have also endorsed the need to stop before warming by 2 degrees Celsius.”²⁴ In the scientific community, “the consensus is that the limit should be 400 to have a good chance of restricting the global temperature rise to 2 degrees Celsius.”²⁵

In its Fourth Assessment Report, the IPCC states that “limiting temperature increases to 2°C above preindustrial levels can only be reached at the lowest end of the concentration interval found in the scenarios of category I (i.e. about 450 ppmv CO₂-eq using ‘best estimate’ assumptions).”²⁶ In category I scenarios, emissions must peak between 2000 and 2015 and the change in global emissions in 2050 must be between fifty and eighty-five percent of 2000 levels.²⁷ Limiting the temperature increase to 2.4°C-2.8°C (category II) would mean that emissions must peak between 2000 and 2020 and the change in global emissions must be between thirty and sixty percent of 2000 levels.²⁸ Limiting the temperature increase to 2.8°C-3.2°C (category III) would mean that emissions must peak between 2010 and 2030 and the change in global emissions must be between five and thirty percent of 2000 levels.²⁹

In a May 2008 letter, the Union of Concerned Scientists called for “reduc[ing] emissions on the order of 80 percent below 2000 levels by 2050.”³⁰ The signatory scientists called for the first step to be “reductions on the order of 15-20 percent below 2000 levels by 2020, which is achievable and consistent with sound economic policy.”³¹

The Road to Copenhagen: What Happened in Bali and Poznan

The Thirteenth Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 13)/ the Third Session of the Meeting of the Parties to the Kyoto Protocol (COP/MOP 3) held December 3-15, 2007 in Bali, Indonesia produced the Bali Roadmap. Bali saw the formation of the Ad Hoc Working Group on Long-

²² *Ibid.*

²³ Robert Henson, *The Rough Guide to Climate Change 280* (Rough Guides Ltd. 2d ed. 2008).

²⁴ W.L. HARE, *A Safe Landing for the Climate*, in *State Of The World 2009: Into a Warming World*, 13, 18 (Worldwatch Institute 2009).

²⁵ *Beyond Our Means*, *South China Morning Post*, Dec. 1, 2008, at 16 (News).

²⁶ B.S. Fisher, N. Nakicenovic, K. Alfsen, J. Corfee Morlot, F. de la Chesnaye, J.-Ch. Hourcade, K. Jiang, M. Kainuma, E. La Rovere, A. Matysek, A. Rana, K. Riahi, R. Richels, S. Rose, D. van Vuuren, R. Warren, 2007: Issues related to mitigation in the long term context, In *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Inter-governmental Panel on Climate Change* [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)], Cambridge University Press, Cambridge, at 227, available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter3.pdf>.

²⁷ *Ibid.* at 229.

²⁸ *Ibid.*

²⁹ *Ibid.*

³⁰ *U.S. Scientists and Economists’ Call for Swift and Deep Cuts in Greenhouse Gas Emissions*, Union of Concerned Scientists Letter, May 2008, available at http://www.ucsusa.org/assets/documents/global_warming/Scientist_Economists_Call_to_Action_fnl.pdf.

³¹ *Ibid.*

term Cooperative Action under the Convention.³² The Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) is known as the “UNFCCC track” and runs parallel to the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Protocol (AWG-KP), the “Kyoto Protocol track.” The creation of the new AWF-LCA is vital to the negotiation of a post Kyoto successor treaty by Copenhagen in 2009: “The key decision in Bali was the launch of a negotiating process under the Convention that will now run in parallel with the Kyoto negotiations with the expectation that – although not formally linked – the two tracks will converge in a comprehensive post-2012 agreement in 2009.”³³ The two tracks must merge to create one cohesive regime.

At COP 13, both developed and developing nation parties adopted mitigation measures for the first time. Developed nation parties committed to “Measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, by all developed country Parties, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances.”³⁴ Developing nation parties committed to “Nationally appropriate mitigation actions by developing nation Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner.”³⁵ Bali marked the first time that developing nations agreed to any kind of binding mitigation measures under either the UNFCCC or Kyoto Protocol tracks.

The Fourteenth Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 14)/ the Fourth Session of the Meeting of the Parties to the Kyoto Protocol (COP/MOP 4) held December 3-15, 2007 in Poznan, Poland served mainly as a “pit stop” on the road to Copenhagen and “barely produced any remarkable results.”³⁶ Largely due to the political situation in the United States, most developing countries did not make significant moves in Poznan.³⁷ Poznan lacked the sense of urgency needed to lay an aggressive and attainable course on the road to Copenhagen. The EU called for reductions on the part of both developed and developing countries but developing countries called for “stronger support” from developed countries.³⁸

In Poznan, the AWG-KP “reached no conclusions on the range of emission reductions to be undertaken by developed countries.”³⁹ Most were “unprepared” to negotiate without the U.S. on board.⁴⁰ The AWG-LCA managed to accomplish significantly more at Poznan than the AWG-KP. The AWG-LCA “resolved to ‘shift into full negotiating mode in 2009’ ”⁴¹ and “adopted a work program authorizing its chair to draft the documents needed to carry its

³² Pew Center on Climate Change, Bali Summary, at 3, available at http://www.pewclimate.org/docUploads/Pew%20Center_COP%2013%20Summary.pdf.

³³ *Ibid.*

³⁴ U.N. Framework Convention on Climate Change, Conference of the Parties, Thirteenth Session, Bali Action Plan para. 1(b)(i), Decision 1/CP.13, U.N. Doc. FCCC/CP/2007/6/Add.1 (March 14, 2008) available at <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=3>.

³⁵ *Ibid.* at para. 1(b)(ii).

³⁶ *Pit Stop Poznan. An Analysis of Negotiations on the Bali Action Plan at the Stopover to Copenhagen.* Wuppertal Institute for Climate, Environment and Energy, at 2, available at http://www.wupperinst.org/uploads/tx_wibeitrag/Pit-Stop-Poznan.pdf.

³⁷ *Summary of the Fourteenth Conference of the Parties to the UN Framework Convention on Climate Change and Fourth Meeting of Parties to the Kyoto Protocol: 1-12 December 2008*, 12 EARTH NEGOTIATIONS BULLETIN 395, available at <http://www.iisd.ca/download/pdf/enb12395e.pdf>.

³⁸ Pew Center on Climate Change, *Poznan summary*, at 1-2, available at <http://www.pewclimate.org/docUploads/PewCenterCOP14Summary.pdf>.

³⁹ *Ibid.* at 2.

⁴⁰ *Ibid.*

⁴¹ *Ibid.*

work forward.”⁴² The documents are 1) “a document ‘describing areas of convergence in the ideas and proposals of the Parties, exploring options for dealing with areas of divergence and identifying any gaps that might need to be filled in reaching an agreed outcome;’ ” and 2) “a negotiating text for consideration at the AWG-LCA’s second session next year, in June [2009].” A disagreement also arose in Poznan as to the “kind of legal outcome aimed at in Copenhagen.”⁴³ The legal form of a Kyoto successor treaty will be addressed in the next section.

Necessary Framework for Mitigation in a Kyoto Successor Treaty—The “Copenhagen Protocol”

A mitigation framework for a Kyoto successor treaty must include several key components. First, a Kyoto successor treaty must include all nations. Second, the reduction in greenhouse gas emissions to eighty percent below 1990 levels by 2050 must be across the board and cannot be based on a nation’s per capita emissions.⁴⁴ Third, the treaty must take the form of a new legal instrument under the UNFCCC that replaces the Kyoto Protocol rather than an amendment to the Kyoto Protocol or a Meeting of the Parties (CMP) decision.⁴⁵ The new legal instrument, the “Copenhagen Protocol,” must incorporate Kyoto elements into the new instrument.⁴⁶ However, elements of Kyoto that are not functioning properly should be eliminated from the Copenhagen Protocol. Fourth, Annex I nations must establish a fund solely to provide monetary aid to non-Annex I nations to achieve their mitigation commitments. Fifth, the Copenhagen Protocol must establish a comprehensive enforcement mechanism. This paper will focus on the basic framework for the mitigation aspects of the Copenhagen Protocol. The mitigation framework proposed here is not meant to be comprehensive.

An all-inclusive Kyoto successor treaty will give all nations the opportunity to sign on and will tone down any anger or resentment nations could have about being left out of the process. Kyoto critics endorse other approaches such as “bring[ing] together a more limited number of major-emitting and like-minded countries.”⁴⁷ Others advocate that countries should “make pledges of particular domestic measures.”⁴⁸ Bringing together a smaller group of the major polluters could potentially work only if it was part of the post-Kyoto mitigation framework. One design for this smaller group “is an agreement among the dozen or so major emitting countries—the United States, China, Europe, Russia, Japan, India, Indonesia, Brazil, Australia, Canada, Mexico, Korea, South Africa, and perhaps a few other major countries—in a regime to limit global GHG emissions.”⁴⁹ A design of this sort will never work as part of “a parallel regime in a plurilateral approach” because China will never sign onto anything that interferes with the UNFCCC or Kyoto tracks.⁵⁰ Any action that smaller groups take with regard to the Copenhagen Protocol must complement rather than replace and official work under the UNFCCC and more specifically, the AWG-KP or the AWG-LCA.

⁴² *Ibid.*

⁴³ Wuppertal Institute for Climate, Environment and Energy, *supra* note 35, at 21.

⁴⁴ Fisher, *supra* note 25, at 229.

⁴⁵ Daniel Bodansky, *Legal Form of a New Climate Agreement: Avenues and Options*, available at <http://www.pewclimate.org/docUploads/legal-form-of-new-climate-agreement-paper.pdf>.

⁴⁶ *Ibid.*

⁴⁷ KYLE W. DANISH, *The International Regime*, in *GLOBAL CLIMATE CHANGE AND U.S. LAW*, 31, 54 (Michael B. Gerrard ed., 2008).

⁴⁸ *Ibid.*

⁴⁹ Jonathan B. Wiener, *Climate Change Policy and Policy Change in China*, 55 *UCLA L. REV.* 1805, 1823-1824 (2008).

⁵⁰ *Ibid.*

Professor Prins argues that “the only way to save the Copenhagen meeting from failure would be to shift away from the top-down approach of the Kyoto framework, and end the quest for tighter emissions targets, closer timetables and more building regulations.”⁵¹ Prins’ recommendation for “end[ing] the quest for tighter emissions targets [and] closer timetables” in Copenhagen contradicts the entire UNFCCC and Kyoto approach. The science in the IPCC Fourth Assessment report clearly shows that we must act now. Completely revamping our approach less than a year prior to Copenhagen is a recipe for disaster. Xie Zhenhua, the minister and vice-director of China’s National Development and Reform Commission (NDRC) has already warned that the Chinese will not shift away from “the top-down approach of the Kyoto framework:” “ ‘Any attempt to deviate from, breach or re-define the Convention, or to deny the Kyoto Protocol, or to merge the Convention process with the Kyoto Protocol process, will be detrimental, and will ultimately lead to a fruitless Copenhagen Conference.’ ” With the proper technology transfer and significant monetary aid, though, China may be willing to deny the Kyoto Protocol and merge the AWG-KP and AWG-LCA tracks.

The reduction in greenhouse gas emissions to eighty percent below 1990 levels by 2050 must be across the board.^{52, 53} Reduction commitments cannot be based on a nation’s per capita emissions. Basing reduction commitments on per capita emissions will actually increase emissions. Professor McCubbin argues for China’s cap to be based on “greenhouse gas emissions per unit of GDP.”⁵⁴ She argues that “this approach would allow China’s economy to grow, but it would require its emissions to grow more slowly than if left uncontrolled.”⁵⁵

The Kyoto Protocol’s first commitment period ends in 2012. The Copenhagen Protocol must cover the time period from 2012 to 2050. The first commitment period for the Copenhagen Protocol should begin in 2012 and go until 2020. This first commitment period will be shorter than the other three commitment periods. The next three commitment periods will run from 2020 to 2030, from 2030 to 2040, and from 2040 to 2050. The year 2030 will serve as the official “midpoint” of the Copenhagen Protocol timetable.

This proposed framework is in keeping with the “A Shared Vision for Long-Term Cooperative Action” (hereinafter “Shared Vision”) proposed by the AWG-LCA in documents submitted in advance of the Bonn Climate Change Talks held March 29-April 8, 2009.⁵⁶ This Shared Vision contains “A Long-Term Global Goal for Emission Reductions.”⁵⁷ In paragraph five, the Parties agree that 2050 “is an appropriate time frame for a long-term

⁵¹ Takashi Kitazume, *Rethinking a Global Post-Kyoto Solution: Initiatives to Counter Climate Change Have to be Ecologically Sustainable and Economically Viable*, JAPAN TIMES (Tokoyo), Feb. 10, 2009, at State and Regional News.

⁵² Fisher, *supra* note 25, at 229.

⁵³ *World Must Sink or Swim Together on Warming*, CANBERRA TIMES (Australia), April 8, 2008, at A11. The *Canberra Times* argues that “both poor and wealthy countries must be bound by these new targets. Certain developing countries, such as China and India, are amongst the world’s largest emitters of greenhouse gases. The global targets can only be achieved if all countries reduce their emissions.”

⁵⁴ Patricia R. McCubbin, *China and Climate Change: Domestic Environmental Needs, Differentiated International Responsibilities, and Rule of Law Weaknesses* 33, ENERGY & ENVIRONMENTAL LAW & POLICY JOURNAL, Vol. 3, (2008), available at SSRN: <http://ssrn.com/abstract=1212562> (article forthcoming in University of Houston’s Energy & Environmental Law & Policy Journal).

⁵⁵ *Ibid.*

⁵⁶ Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention, *Fulfillment of the Bali Action Plan and Components of the Agreed Outcome Note by the Chair part I.*, U.N. Doc. FCCC/AWGLCA/2009/4 (Part II) (March 18, 2009), available at <http://unfccc.int/resource/docs/2009/awglca5/eng/04p02.pdf>.

⁵⁷ *Ibid.*

goal.”⁵⁸ Proposals by the Parties include stabilization of GHG emissions “of around 450 ppm carbon dioxide equivalent (CO₂ eq) or 350 ppm CO₂ eq;” limiting the global average temperature increase to between 1.5°C and 2°C above pre-industrial levels; and quantification of “GHG emission reductions at a global level,” reducing to “50 percent of 1990 levels, or without specifying the base year,” “reductions of between 75 and 85 percent (including ranges within these figures) of 1990 levels;” and per capita GHG emission reductions.⁵⁹

During the first commitment period from 2012 to 2020, non-Annex I nations, including China and India, will be allowed to increase their greenhouse gas emissions. After the first commitment period, non-Annex I nations must begin to reduce their greenhouse gas emissions. The Fourth IPCC report indicates that “global greenhouse gas emissions growth needs to stop within the next 10-25 years, followed by a sharp decline.”⁶⁰ Non-Annex I nations will still be expected to meet the target of an eighty percent reduction in greenhouse gas emissions by 2050. Non-Annex I nations should be allowed to increase their greenhouse gas emissions during the first commitment period to gain time to aggressively put in place energy efficiency programs and new, clean technology. The new fund established under the Copenhagen Protocol will assist non-Annex I nations in achieving these goals. Professor McCubbin agrees that a cap on China’s greenhouse gas emissions must be “set *above* current levels in order to allow for growth.”⁶¹ Most experts agree that worldwide greenhouse gas emissions should peak by 2020 then must fall in order for emissions to stabilize at 400-450 ppm carbon dioxide equivalent and to cap warming at two degrees Celsius above pre-industrial levels.

The Copenhagen Protocol must take the form of a *new* legal instrument under the UNFCCC regime that incorporates Kyoto elements into the new instrument. The Copenhagen Protocol should retain the following Kyoto elements: an emissions trading scheme (often referred to as “cap-and-trade”) and the Clean Development Mechanism (CDM). The Copenhagen Protocol should eliminate Joint Implementation (JI). The Copenhagen Protocol must also incorporate UNFCCC and Kyoto Protocol principles such as common but differentiated responsibilities and equity.

Kyoto’s emissions trading scheme should be continued in the Copenhagen Protocol because it functions well and has established a carbon market. Article Seventeen of the Kyoto Protocol sets out the emissions trading scheme. Article Seventeen “allows countries that have emission units to spare—emissions permitted them but not ‘used’—to sell this excess capacity to countries that are over their targets.”⁶² Article Seventeen created a carbon market with carbon being tracked and traded as a new commodity.⁶³ Replacing the emissions trading scheme with a carbon tax “could congest an already difficult negotiation.”⁶⁴

The Copenhagen Protocol must overhaul the CDM system because the CDM has lost credibility in recent years. Ambassador Stuart Eizenstat agrees that “the CDM has not met expectations that it would promote emission reducing investments throughout the developing

⁵⁸ *Ibid.* at part I., para. 5.

⁵⁹ *Ibid.* at part I., para. 5-6.

⁶⁰ Netherlands Environmental Assessment Agency, *Chinese CO₂ Emissions in Perspective*, press release, June 22, 2007, available at <http://www.pbl.nl/en/news/pressreleases/2007/20070622ChineseCO2emissionsinperspective.html>.

⁶¹ McCubbin, *supra* note 53, at 32.

⁶² *Emissions Trading*, UNFCCC online document, available at http://unfccc.int/kyoto_protocol/mechanisms/emissions_trading/items/2731.php.

⁶³ *Ibid.*

⁶⁴ *The Rough Guide to Copenhagen’s Risks*, ENDS REPORT, March 31, 2009, at 32.

world, and we now have an opportunity to revisit it.”⁶⁵ The CDM is defined in Article Twelve of the Kyoto Protocol and “allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries. Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO₂, which can be counted towards meeting Kyoto targets.”⁶⁶ Essentially, developed nations are able to “[lower] their greenhouse gas emissions by financing emission reduction projects in developing countries where investment is cheaper.”⁶⁷

CDM overhaul should include several key components. First, the new CDM should mandate CDM project quotas for countries which have historically hosted fewer CDM projects, such as many African nations. As of early March 2009, there were “850 clean development mechanism projects in 49 developing countries but only 23 of those projects [were] in Africa.”⁶⁸ Second, Copenhagen negotiators must streamline and speed up the CDM project approval process. Third, the new CDM should contain front-loaded time-limited participation incentives to keep the CDM operational despite the economic crisis.

The Copenhagen Protocol should eliminate JI because it allows developed countries to conduct projects in other developed countries and produces a lot of “hot air.”⁶⁹ Article Six of the Kyoto Protocol sets out the JI mechanism. Article Six “allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO₂, which can be counted towards meeting its Kyoto target.”⁷⁰ JI is totally ineffective; it is simply a way for developed countries to earn ERUs for less than it would have cost in their own respective countries. The “benefited” developed country is receiving a benefit that it never needed anyway.

Article Three of the UNFCCC sets forth hortatory (“should”) guiding principles “for actions by the parties to achieve the objective of the UNFCCC, including common but differentiated responsibilities.”⁷¹ The UNFCCC describes common but differentiated responsibilities in terms of developed and developing nations and equity:

The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.⁷²

In documents submitted in advance of the Bonn Climate Change Talks, the AWG-LCA particularly focused on the principles of common but differentiated responsibilities and equity in its “Shared Vision.” Two topics under this “Shared Vision” complement the UNFCCC principles of common but differentiated responsibilities and equity:

⁶⁵ Stuart Eizenstat, *The U.S. Role in Solving Climate Change: Green Growth Policies Can Enable Leadership Despite the Economic Downturn*, 30 ENERGY L.J. 1, 2009.

⁶⁶ *Clean Development Mechanism (CDM)*, UNFCCC online document, available at http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php.

⁶⁷ Wambi Michael, *Crisis May Further Undermine Investment in Carbon Trade in African Countries; Environment: Climate Change Does Not Wait for Recessions*, IPS (Latin America), March 5, 2009.

⁶⁸ *Ibid.*

⁶⁹ “Hot air” refers to the fact that no true abatement has occurred. In the case of JI, there is “hot air” because developed countries are doing projects in other developed countries for less cost than in their own countries.

⁷⁰ *Joint Implementation (JI)*, UNFCCC online document, available at http://unfccc.int/kyoto_protocol/mechanisms/joint_implementation/items/1674.php.

⁷¹ Bodansky, *supra* note 44, at 5.

⁷² *United Nations Framework Convention on Climate Change*, U.N. Doc. A/AC.237/18 (May 9, 1992), available at http://unfccc.int/essential_background/convention/background/items/1349.php.

(a) Approaches to long-term cooperative action on the basis of equity and in accordance with the provisions and principles of the Convention, in particular the principle of common but differentiated responsibilities and respective capabilities, taking into account social and economic conditions and other relevant factors;

(g) The determination of developing countries to take nationally appropriate mitigation actions (NAMAs) in the context of sustainable development and the determination of developed countries to provide support in the form of technology, finance and capacity-building, all of the above in a measurable, reportable and verifiable manner.⁷³ The NAMAs, first proposed in Bali, help link the principles of common but differentiated responsibilities and equity with a more specific mitigation strategy.

The Copenhagen Protocol must take form of a new legal instrument that replaces the Kyoto Protocol rather than 1) “A COP decision addressing further actions under the Convention; 2) “Adoption by the COP of an amendment to the UNFCCC or to an annex, setting forth additional actions and/or commitments by UNFCCC parties;” or 3) “Adoption by the COP of a new legal instrument that...supplements...the Kyoto Protocol.”⁷⁴ Creating a new legal instrument would enable nations that are not parties to Kyoto to sign the new instrument and bypass Kyoto entirely. Although Chris Spence, the Deputy Director of Reporting Services for the International Institute for Sustainable Development (IISD) has indicated that there is “no clear consensus” on the legal form that a future agreement will take, Professor Bodansky proposes that: “A comprehensive outcome establishing a single integrated climate regime would have several benefits.”⁷⁵ He logically connects a single integrated climate regime with “adoption of a single new instrument under the Convention (either a Convention amendment or a new protocol), which addressed actions and/or commitments by both Kyoto Protocol parties and Convention parties that are not parties to the Protocol.” Because all nations must meet the same emission reduction requirements, there is no need to differentiate these commitments. Non-Annex I parties will be given extra time and resources to achieve their emissions targets. Adding another annex will complicate the situation.

The Copenhagen Protocol must establish a fund solely to assist Annex-I nations in providing monetary aid to non-Annex I nations to help the non-Annex I nations achieve their mitigation commitments.⁷⁶ Developing nations will not sign onto the Copenhagen Protocol without significant technology transfer and monetary aid. Providing significant funding to non-Annex I nations will help enable them to meet emission reduction commitments of eighty percent by 2050. This fund should be separate from the CDM.

The Copenhagen Protocol must correct the ineffective Kyoto Protocol compliance system. The Kyoto Protocol compliance system only applies to Annex I nations, and does not apply to all aspects of Kyoto. Kyoto has failed in part because: “Under Article 18 of the Protocol, any compliance procedures entailing binding consequences must be adopted as an amendment to the Protocol.”⁷⁷ Article Twenty sets out procedural requirements for amending

⁷³ Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention, *supra* note 55, at part I, para. 2.

⁷⁴ Bodansky, *supra* note 44, at 2.

⁷⁵ Chris Spence, *Climate Policy Update—An Overview of the Multilateral Climate Negotiations*, IISD Reporting Services, available at <http://www.iisd.ca/climate-1/update/update2.html>; Bodansky *supra* note 44, at 7.

⁷⁶ Wu Liming and Huan Gongdi, *Top Chinese Negotiator Urges Developed Countries to Commit More in Fighting Climate Change*, XINHUA NEWS SERVICE, March 31, 2009, available at http://news.xinhuanet.com/english/2009-04/01/content_11109345.htm.

⁷⁷ Pew Center on Global Climate Change, *COP 11 and COP/MOP 1 Montreal Summary*, available at <http://www.pewclimate.org/print/1980>.

the Kyoto Protocol.⁷⁸ Article Twenty states that parties should try to reach consensus on the proposed amendment, but if consensus is not reached, “the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting.” This means that if a nation decides it does not want to ratify an amendment, it can essentially nullify the entire enforcement process.

The Copenhagen Protocol must contain comprehensive legally binding enforcement mechanisms. The new enforcement mechanisms should apply to both Annex I and non-Annex I nations and should impose penalties for noncompliance in every part of the Copenhagen Protocol including any flexible mechanisms or funds. The new compliance regime could build on the Expert Review Teams and Compliance Committee established under Kyoto by the Marrakesh Accords.⁷⁹ The roles of both entities would expand to cover all signatory countries. The Copenhagen Protocol would need to establish new enforcement bodies to monitor aspects not subject to enforcement under the Kyoto Protocol.

The Copenhagen Protocol must detach penalties under the enforcement regime from any amendment process. Penalties must be negotiated and put into the actual original document, not left incomplete for discussion later. Penalties for non-compliance could be linked to each of the four commitment periods with penalties becoming more severe as 2050 approaches. Additional sanctions could include cutting off mitigation assistance funds to developing nations for non-compliance.

China agrees that an enforcement mechanism is a necessary part of the Copenhagen discussions. Su Wei, the Chinese delegation chief to the UN climate change talks in Bonn, said that an “ ‘effective supervision mechanism’ should be set up to monitor the above-mentioned technology transfer and funding.”⁸⁰

While a number of potential approaches to a post Kyoto treaty have merit, many fail to address what countries have said they will or will not do. There are some aspects of a Kyoto successor treaty that nations may be willing to compromise on, but a viable solution cannot ignore fundamental views on approaches to the successor treaty. Monetary aid and technology transfer will assist in bringing some nations on board, but any successful Kyoto successor treaty must follow the UNFCCC principles of common but differentiated responsibilities and equity.

If We Build It, They Will Come

In its January 2009 report entitled *A Roadmap for U.S.-China Cooperation on Energy and Climate Change*, the Pew Center on Global Climate Change proposed a global climate change framework for a partnership between the U.S. and China:

...if human beings hope to avoid the worst consequences of global climate change, the United States and China—respectively the world’s largest developed and developing nations, the two largest energy consumers, and the two largest producers of greenhouse gases—have no alternative but to become far more active partners in developing low-carbon economies.

To prevail in such a common effort, both countries will need not only bold leadership and a new set of national policies, but also a path-breaking cooperative agenda that can be sustained over the long run. The advent of a new U.S. presidential administration in Washington, D.C., coupled with a central leadership in Beijing that

⁷⁸ *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, U.N. Doc. FCCC/CP/197/L.7/Add. 1, art. 20.3 (Dec. 10, 1997), available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf>.

⁷⁹ Danish, *supra* note 46 at 51.

⁸⁰ Liming, *supra* note 75.

is increasingly aware of the destructive impact and long-term dangers of climate change, presents an unparalleled opportunity for this new strategic partnership.⁸¹

The report first recommends that the U.S. and China have a summit between the two leaders as soon as possible after Obama takes office to form a “U.S.-China Partnership on Energy and Climate Change.”⁸² The partnership is to be directed by two parallel groups. The U.S.-China high-level council will include high-ranking environment, energy, and finance officials from both countries.⁸³ The second tier of bilateral task forces will include senior officials and independent government experts.⁸⁴ Priority areas of collaboration will include: 1) deploying low-emissions coal technologies; 2) improving energy efficiency and conservation; 3) developing an advanced electric grid; 4) promoting renewable energy; and 5) quantifying emissions and financing low-carbon technologies.”⁸⁵

The U.S. and China are the two countries best suited to form a partnership and take the lead on curbing greenhouse gas emissions because both countries have a lot to gain, and conversely, a lot to lose. The U.S. and China are inextricably tied together in the global climate change conundrum: “For whether we choose to recognize it or not, these two countries are both crucial in the effort to address climate change. Simply put, if these two countries cannot find ways to bridge the long-standing divide on this issue, there will literally be no solution.”⁸⁶ It is time for the global game of “chicken” to be over. Unless the U.S. and China can create adequate incentives, “the prospects for an adequate multilateral agreement are dim. The post-Kyoto process does not appear to be developing fast enough among a sufficient number of major emitters to avoid a doubling of atmospheric concentrations of carbon dioxide from preindustrial levels.”⁸⁷ The U.S. and China must seize this unique opportunity to create this partnership and show the rest of the globe they are serious about global climate change and a Kyoto successor treaty.

The Time Is Now: Implementing The Copenhagen Protocol in The U.S. and China

Since the election of Barack Obama to the U.S. presidency, world leaders and global climate change supporters have adopted a much more optimistic attitude towards a Kyoto successor treaty. Americans feel relieved that Mr. Bush is now out of office and that the U.S. can move forward and fulfill its leadership role in the global climate change debate. Mr. Bush “framed his approach to global warming around two talking points: the uncertainties in forecasts of a dangerously human-heated world and the certainty that economic harm would come from mandatory cuts in emissions of heat-trapping gases.”⁸⁸ The New York Times observes that President Obama has completely gone in the other direction: “Mr. Obama has taken precisely the opposite track. He spoke late last month of the specter of ‘violent conflict, terrible storms, shrinking coastlines’ and other perils from unchecked warming, while pressing his vision of prosperity rebuilt around clean cars and pollution-free power from the wind and sun.”⁸⁹ While Obama seems to be headed in the right direction, he still needs to educate some

⁸¹ Pew Center on Global Climate Change, *A Roadmap for U.S.-China Cooperation on Energy and Climate Change* at 6 (2009), available at <http://www.pewclimate.org/docUploads/US-China-Roadmap-Feb09.pdf>.

⁸² *Ibid.* at 7.

⁸³ *Ibid.*

⁸⁴ *Ibid.*

⁸⁵ *Ibid.* at 7-8.

⁸⁶ *Ibid.* at 8.

⁸⁷ Michael P. Vandenbergh, *Article: Climate Change: The China Problem*, 71 S. CAL. L. REV. 905, 930 (July, 2008).

⁸⁸ Andrew C. Revkin, *Environmental Views, Past and Present Climate: The Legacy of Kyoto*, N.Y. TIMES LATE ED., Feb. 7, 2009, at A12.

⁸⁹ *Ibid.*

Americans “ ‘grappling with uncertain science and a grinding recession that work on long-term energy and climate security cannot be deferred until better times.’ ”⁹⁰ Some of that convincing may need to be directed towards the U.S. Senate.

Under Article II of the U.S. Constitution, President Obama has the power to make treaties, but “two thirds of the Senators present [must] concur.”⁹¹ Three U.S. Senate committees currently “all claim jurisdiction on climate change.”⁹² These committees are the Senate Environment and Public Works Committee, the Senate Energy and Natural Resources Committee, and the Senate Finance Committee.⁹³ These committees, as well as several committees in the U.S. House of Representatives (House), are currently working on climate change legislation.⁹⁴ In the Senate, there is potential for the more pro-environment Environment and Public Works Committee to produce a bill which not be able to garner support in the full Senate.⁹⁵ It is doubtful that the Senate will be able to produce a climate change bill this year, which does not bode well for the Senate passing a Kyoto successor treaty.

A U.S. domestic climate change bill could originate in either the House or the Senate, but the Senate must pass a Kyoto successor treaty with a two-thirds vote. The timing this year will probably be such that neither the House nor the Senate will produce a climate change bill before Copenhagen. Even if a Kyoto successor treaty is produced in Copenhagen, there may be further delay before the U.S. will ratify the treaty. The Senate may insist that domestic climate change legislation is in place before signing onto a Kyoto successor treaty.

In his campaign for the American presidency, President Obama promised to “implement an economy-wide cap-and-trade program to reduce greenhouse gas emissions 80% percent by 2050.”⁹⁶ Since taking office earlier this year, “President Obama has radically shifted the global equation, placing the United States at the forefront of the international climate effort and raising hopes that an effective international accord might be possible.”⁹⁷ On January 26, 2009, Secretary of State Hillary Clinton announced the appointment of Todd Stern as the Special Envoy for Climate Change.⁹⁸ In making the announcement, Clinton emphasized that the new administration is committed to crafting a new global climate change plan for the U.S.:

And that is just a start. As the President has made clear, he is committed to enacting a far-reaching new energy and climate plan. As we take steps at home, we will also vigorously pursue negotiations, those sponsored by the United Nations and those at the sub-global, regional, and bilateral level that can lead to binding international climate agreements. No solution is feasible without all major emitting nations joining together and playing an important part.⁹⁹

Steven Chu, the Secretary of the U.S. Department of Energy, has now confirmed that the U.S. plans on being a leader in Copenhagen: “ ‘President Obama has made it clear that

⁹⁰ *Ibid.*

⁹¹ U.S. CONST. art. II, § 2, cl. 2.

⁹² *House Climate Change Bill Seen As Signal To International Talks*, 27 INSIDE U.S. TRADE 17, May 1, 2009.

⁹³ *Ibid.*

⁹⁴ *Ibid.*

⁹⁵ *Ibid.*

⁹⁶ *Barack Obama and Joe Biden: New Energy for America* (presidential campaign material), available at http://www.barackobama.com/pdf/factsheet_energy_speech_080308.pdf.

⁹⁷ Elisabeth Rosenthal, *Obama's Backing Increases Hopes for Climate Pact*, N.Y. TIMES LATE ED. March 1, 2009, at A1.

⁹⁸ U.S. Department of State Website, *supra* note 17.

⁹⁹ *Ibid.*

the US should act first...Using China as a reason not to act is no longer an option.’¹⁰⁰ Even with the current economic crisis, the outlook of the new administration towards a Kyoto successor treaty seems to be one of optimism.

At the end of January and within days of President Obama’s inauguration, Senator John Kerry and former Vice-President Al Gore began to lobby the Senate on a Kyoto successor treaty. Senator Kerry, former Vice-President Gore, and Mr. Alden Meyer with the Union of Concerned Scientists sat down with Richard Harris of National Public Radio News (NPR News) who spoke with them about a Kyoto successor treaty and what must happen this year for Copenhagen to be a success.¹⁰¹

Richard Harris: Massachusetts Democrat John Kerry, who chairs the Senate Foreign Relations Committee, reminded his colleagues the new treaty will be negotiated in December of this year.

Senator John Kerry (Democrat, Massachusetts): That means there is no time to waste. We must learn from the mistakes of Kyoto, and we must make Copenhagen a success.

...

Mr. Gore: Recent statements by Chinese leaders have made it very clear that they are changing, and changing rapidly.

...

Harris: China has been reluctant to make binding promises until the United States does. And since the U.S. wants promises from China up-front, it’s a bit of a game of chicken at this point. Meyer says unfortunately, a lot of senators don’t realize that developing nations are doing as much as they are.

...

Harris: Yesterday, Al Gore started selling members of the Senate on the need to act and act fast. And while he had a very sympathetic audience at the Foreign Relations Committee, it takes 67 senators to ratify a treaty, and it’s clear that there’s a lot more convincing to do.¹⁰²

China also seems to be turning a corner, but China’s turning the corner will depend on U.S. participation in Copenhagen and the meetings leading up to Copenhagen throughout this year. Even if the U.S. does manage to get China on board, implementation of the Copenhagen Protocol will be difficult in China: “Even if China were to adopt significant and binding GHG emissions, there are serious concerns about how they would be implemented and whether such targets could be effectively achieved.”¹⁰³ Professor Yang identifies two barriers to the implementation of a binding GHG emissions scheme: “First, China’s continued overwhelming focus on economic development objectives, which runs through China’s climate programs, raises questions as to whether its policies can promote environmental sustainability. Second, the weakness of China’s existing environmental regulatory infrastructure and legal institutions put into doubt its ability to limit GHG emissions effectively.”¹⁰⁴ Professor McCubbin echoes many of Professor Yang’s concerns:

...this article focuses in particular on three key points, often overlooked in discussions about China’s role in addressing climate change, that will be critical to those negotiations:

¹⁰⁰ Clive Cookson & Fiona Harvey, *Chu Aims to Seize Climate Initiative*, FINANCIAL TIMES May 27, 2009, at 5.

¹⁰¹ National Public Radio News, *Gore Urges Senate to Avoid Kyoto-Type Failure*, Morning Ed. 10:00 AM EST NPR, Jan. 29, 2009.

¹⁰² *Ibid.*

¹⁰³ Tseming Yang, *Workshop Paper: The Implementation Challenge of Mitigating China’s Greenhouse Gas Emissions*, 20 GEO. INT’L ENVTL. L. REV. 681, 683 (Summer 2008).

¹⁰⁴ *Ibid.*

(1) the synergy between China's domestic environmental goals and the international community's objectives, (2) the need to harmonize environmental protection with China's continued economic growth, and (3) the importance of improving China's rule of law in order to meet the environmental aims.¹⁰⁵

The Cable News Network (CNN) documentary "Planet in Peril" shows the situation powerfully and vividly. As the documentary team approached the outskirts of the city of Tialinjin, "brown stinking water from local chemical factories was flowing into ditches near the [Heilongjiang] river. We learned quickly that pollution is a touchy subject in China. As we left the river, word of our presence started to get around. So it didn't take long for the police to find us."¹⁰⁶ The police wanted to see the documentary team's passports, find out what they were doing, and question them.¹⁰⁷ When the documentary team knocked on the mine director's office at nearby Dabaoshan mine, he refused to answer any questions.¹⁰⁸

Despite potential problems implementing the Copenhagen Protocol at the provincial and local levels, the national government in Beijing has shown that it can act swiftly and effectively on environmental matters. The "plastic bag story" is one of the best examples of Beijing's unique ability to quickly effect environmental change. As Thomas Friedman puts it, "One morning in late 2007 China's shopkeepers woke up and found that the State Council had announced that beginning June 1, 2008, all supermarkets, department stores, and shops would be prohibited from giving out free plastic bags, in order to discourage the use of these petroleum-based products. In the future, stores would have to charge customers for them."¹⁰⁹ Friedman asks "What would be so bad? China? Just for one short day?"¹¹⁰ The U.S. could learn an awful lot by being China "for just one short day."¹¹¹

A binding enforcement mechanism in the Copenhagen Protocol would enable the international community to more effectively "push China for legal reforms."¹¹² Professor McCubbin suggests using "both the promise of aid and the threat of sanctions to bring those commitments to fruition."¹¹³ New York Times columnist Paul Krugman also thinks that rogue greenhouse gas emitting nations will face serious consequences in the near future: "Sooner than most people think, countries that refuse to limit their greenhouse gas emissions will face sanctions, probably in the form of taxes on their exports."¹¹⁴

A Kyoto Successor Treaty and the Economic Crisis

Most commentators argue that a Kyoto successor treaty should not be affected by the current economic crisis. Many argue that the economic crisis may help the "green revolution." Developing countries especially do not want climate change efforts compromised:

Costa Rica, for the G-77/China, said efforts to address climate change should not be compromised by the current financial crisis. She also noted that adaptation and mitigation

¹⁰⁵ McCubbin, *supra* note 53, at 2.

¹⁰⁶ *Planet in Peril* (CNN television broadcast Oct. 23, 2007). The transcript is available at <http://transcripts.cnn.com/TRANSCRIPTS/0710/23/se.01.html>.

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.* The mine director did say "It's a complicated issue...The government leaders do realize it's a problem, and there have been some environmental issues." Earlier, local residents had admitted that they use the polluted river water to irrigate crops because they have no other choice. When the mine director was asked whether he would eat food irrigated by river water or drink the water, he said "Of course not." The state environmental agency in Beijing (which has oversight) refused to comment.

¹⁰⁹ Friedman, *supra* note 18, at 373.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

¹¹² McCubbin, *supra* note 53, at 4.

¹¹³ *Ibid.*

¹¹⁴ Paul Krugman, *U.S. Aboard on Climate, but China Drops Anchors*, DENVER POST May 17, 2009, at 2K.

must be addressed as equal priorities, deep emission cuts should primarily be undertaken domestically by developed countries, and nationally appropriate mitigation actions for developing countries should be considered in the context of sustainable development.”¹¹⁵

London’s *The Independent* argues that the environment and green technology could be the answer to pull us out of this economic crisis: “...the environment ought to be at the centre of attempts to pull us out of this slump. Unemployed labour should be put to work on schemes that help conserve household energy. And if governments invest in renewable energy schemes while resources are relatively cheap, they can use this downturn to lay the foundations for future green growth.”¹¹⁶

Not acting now on climate change could make the economic situation even worse down the line. The Stern Report, released in October 2006 by the British Chancellor of the Exchequer “estimated that the future adverse consequences of climate change could drain as much as 5% of the global gross domestic product (GDP) in the coming years, whereas immediate, aggressive steps to reduce greenhouse gas emissions would cost only 1% of global GDP.”¹¹⁷

Conclusion—“We Have Exactly Enough Time—Starting Now.”¹¹⁸

China and the U.S. must agree to reduce greenhouse gas emissions to eighty percent below 1990 levels by 2050. A Kyoto successor treaty must employ a top-down approach that includes all nations, must contain across the board cuts, and cannot base emissions reductions on per capita emissions. If emissions cuts are based on per capita emissions, China will still be able to increase its emissions and the treaty will be a failure. The largest polluters, China and the U.S., must take a leadership role in the post-Kyoto regime. China and the U.S. must form a partnership as the Pew Center document *A Roadmap for U.S.-China Cooperation on Energy and Climate Change* suggests. China and the U.S. cannot allow their respective alliances and national interests affect their commitments to the emission reduction levels a post-Kyoto treaty must have.

“There is no time to waste. The most risky thing we can do is do nothing,” wrote the Union of Concerned Scientists in its May 2008 letter.¹¹⁹ The question is: if the scientists are so concerned about global climate change, then why are the rest of us not? China and the U.S. are now the top two emitters of greenhouse gases in the world. If China and the U.S. cannot work together to help craft a Kyoto successor treaty, then there is no hope.

¹¹⁵ Earth Negotiations Bulletin, *supra* note 36, at 13.

¹¹⁶ *A Global Deal in Copenhagen Can Still Pull Us Back from the Brink*, *The Independent* (London), March 14, 2009, at 30.

¹¹⁷ McCubbin, *supra* note 53, at 11.

¹¹⁸ Friedman, *supra* note 18, at 412.

¹¹⁹ Union of Concerned Scientists, *supra* note 29.