ARTICLE

CHINA AND CLIMATE CHANGE: DOMESTIC ENVIRONMENTAL NEEDS, DIFFERENTIATED INTERNATIONAL RESPONSIBILITIES, AND RULE OF LAW WEAKNESSES

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China and the United States, the two leading emitters of greenhouse gases, currently face no treaty obligations to reduce their emissions in order to mitigate climate change, the most pressing environmental issue of the day. Under the Kyoto Protocol, negotiated a little more than a decade ago, China and other developing nations resisted calls for constraints on their greenhouse gas emissions. In turn, the United States refused to agree to the Protocol’s mandates for emissions reductions from developed countries. Since that time, American emissions have continued to grow steadily while China’s have exploded. Today China emits more carbon dioxide, the main greenhouse gas, annually than any other nation, surpassing even the voluminous amounts released by the United States.

International negotiations are now under way in an attempt to secure commitments from the United States and China (as well as other nations) to reduce their greenhouse gases. While the success of those efforts will depend on a host of complex factors, this article focuses on three key but often overlooked points that will prove critical to negotiations with China: (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.

First, the United States and other developed countries have an opportunity that did not exist ten years ago to leverage China’s domestic environmental goals with international efforts to mitigate climate change. Today, extensive air pollution within China, arising in significant part from the production and use of fossil fuels, is endangering the lives of countless citizens and sapping the nation’s economic vitality. Perhaps of even

2. See infra text accompanying notes 33-34.
3. See infra text accompanying notes 35-37.
5. See infra text accompanying notes 53-61.
6. See infra text accompanying notes 62-127 (Part II).
greater consequence, the environmental degradation is becoming a major source of social strife, which, surprisingly, is of great concern to China’s unelected leaders. In response, the Chinese government is already taking steps to reign in emissions of damaging pollutants by altering energy production and usage. It is also signaling a willingness to make similar commitments in a multilateral climate change treaty, especially if the developed nations provide the financial and technical resources necessary to help it identify and implement innovative means to achieve its goals. This synergy between China’s aims and the world’s should not be disregarded.

Second, China’s status as a developing nation—something Americans often overlook—means that its responsibilities under any international pact deserve to be of a different nature than those of the United States. In particular, China’s obligations should reflect the country’s dire need to continue to grow its economy in order to lift its citizenry out of abject poverty. This observation is not intended to excuse that nation altogether from environmental protection, but rather to emphasize that environmental and economic objectives must be pursued in tandem. The goal, in short, must be for the United States and other developed countries to help China forge a path to environmentally-sustainable development. In addition, any international climate change pact should allow China to increase its greenhouse gas emissions in a controlled manner, rather than requiring China to cap its greenhouse gas emissions below current levels, as likely will be required of developed countries. The developed nations simply must take on the added burden of dramatically decreasing their own emissions in order to leave room for China’s growth while preventing catastrophic climate change.

Third, unless remedied, the substantial weaknesses in China’s rule of law will prevent effective implementation of its climate change commitments. Under the current Chinese legal system, the enforcement of environmental requirements suffers from several flaws, including low penalties for noncompliance, reliance on local officials who are often reluctant to act, and limited opportunities for citizens to sue polluters. More fundamentally, the judiciary is poorly trained, rife with

7. See infra text accompanying notes 128-65 (Part III).
8. See infra text accompanying notes 166-99 (Part IV).
9. See infra text accompanying note 167.
10. See infra text accompanying notes 169-73.
11. See infra text accompanying notes 176-77.
corruption and subject to political pressures to ignore the law. The limitations of the legal regime are not entirely surprising, given that the country’s current legal system is fewer than thirty-five years old, and the central government, well aware of the problems, is seeking to make changes. Thus, in any multilateral pact on climate change, the international community should push China for legal reforms, using both the promise of aid and the threat of sanctions to bring those commitments to fruition.

This article begins with a brief overview of the progress to date in the international climate change negotiations. It then discusses more fully the domestic pressures on the Chinese government to reign in its environmental degradation; the country’s continuing need to expand its economy in order to remedy its citizens’ poverty; and the importance of developing a legal system that can enforce meaningful environmental requirements. While the precise details of any Chinese and American agreement on climate change are beyond the scope of this article, the observations offered here, which are informed by the author’s semester as a Fulbright Scholar at the Research Institute for Environmental Law in Wuhan, China, are intended to help shape the ongoing dialogue between the two nations. China’s circumstances offer both opportunities and challenges for our international efforts to address this critical issue. Recognizing them will be the key to success.

I. THE PROGRESS OF INTERNATIONAL NEGOTIATIONS ON CLIMATE CHANGE TO DATE

In 1990, the Intergovernmental Panel on Climate Change (“IPCC”), a highly influential body of international scientists, gathered under the auspices of the United Nations Environment Programme. The IPCC reported that greenhouse gases were likely to cause a rise in global temperatures in the coming decades. Soon thereafter, the United Nations Framework

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12. See infra text accompanying notes 181-82.
13. See infra text accompanying notes 183-90.
14. See ANDREW E. DESSLER & EDWARD A. PARSON, THE SCIENCE AND POLITICS OF GLOBAL CLIMATE CHANGE: A GUIDE TO THE DEBATE 1, 44 (2006) (The Intergovernmental Panel on Climate Change assessments “involve hundreds of scientists from dozens of countries as authors and peer reviewers, including many of the most respected figures in the field. . . . In view of the number and eminence of the participating scientists and the rigor of their review process, the [Panel's] assessments are widely regarded as the authoritative statements of scientific knowledge on climate change.”).
15. See CLIMATE CHANGE: THE IPCC SCIENTIFIC ASSESSMENT (John Houghton, Geoff Jenkins & Jim J. Ephraums eds., 1990); See also Philip Shabecoff, Team of
Convention on Climate Change was adopted at the 1992 Rio Earth Summit, serving as the basis for all international efforts to address greenhouse gases.\footnote{16} The United States, under President George H. W. Bush, signed and ratified it shortly after the Summit.\footnote{17} Since that time, nearly every other nation of the world has ratified the Convention.\footnote{18}

Although the Framework Convention only set certain non-binding “aims” to reduce greenhouse gas emissions,\footnote{19} subsequent meetings and agreements have fleshed out those aims, including most prominently the conference in Kyoto, Japan, in late 1997, which culminated in the Kyoto Protocol.\footnote{20} That Protocol sets mandatory limits on greenhouse gas emissions from developed nations, but allows those nations to use a “cap-and-trade” system and other innovative market-based mechanisms in order to

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Scientists Sees Substantial Warming of Earth, N.Y. TIMES, April 16, 1990, at B7 (reporting that the “team of scientists says it is a ‘virtual certainty’ that the temperature of the earth's surface will rise substantially in the next century” due to the “energy trapped in a greenhouse effect by industrial gases”).
\end{quote}
achieve cost-effective emissions reductions.\textsuperscript{21} In particular, the Protocol assigns to each “Annex B” party\textsuperscript{22}—essentially comprising the major economic powers, such as the United States and members of the European Union, plus some countries undergoing economic transition, such as Russia, Lithuania, and others from the former Soviet bloc—a total, nationwide cap on greenhouse gas emissions to be achieved (on average) each year from 2008 through 2012.\textsuperscript{23} The goal of the Kyoto Protocol is to reduce overall emissions from the Annex B parties by roughly five percent from 1990 levels,\textsuperscript{24} but the individual country obligations vary considerably. For example, Canada must reduce its emissions by six percent from 1990 levels, whereas Iceland may increase its emissions by ten percent.\textsuperscript{25} If the United States had ratified the Protocol, it would have been obligated to reduce its greenhouse gas emissions by seven percent.\textsuperscript{26}

The market-based mechanisms of the Protocol are all

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\textsuperscript{21} See United Nations Framework Convention on Climate Change, Kyoto Protocol, http://unfccc.int/kyoto_protocol/items/2830txt.php (last visited Nov. 15, 2008) (explaining how the Protocol sets “binding targets” and allows, in addition to “national measures,” the use of “market-based mechanisms” to meet those targets). The trading and other flexible, market-based measures lower the overall costs of mitigating greenhouse gases by allowing those polluters with relatively high control costs to obtain reductions from those with lower costs.
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\textsuperscript{22} The Protocol itself actually refers to these as “Parties to Annex I” of the Framework Convention. See Kyoto Protocol, supra note 20, Art. 1, para. 7 & Art. 3, para. 1. The actual caps, however, are set in “Annex B” to the Protocol, with the list of countries in Annex B differing slightly from the nations listed in Annex I to the Convention. For an explanation of the few differences between the two lists, see Danish, supra note 20, at 57 n.35. Sometimes United Nations documents describing the Kyoto Protocol refer to them as “Annex I Parties” and sometimes as “Annex B Parties.” See, e.g., United Nations Framework Convention on Climate Change, Kyoto Protocol Reference Manual on Accounting of Emissions and Assigned Amounts 1, 7 (2007), http://unfccc.int/files/national_reports/accounting_reporting_and_review_under_the_kyoto_protocol/application/pdf/rm_final.pdf. Because the caps are established in Annex B, this article will refer to the nations subject to those caps as “Annex B” countries.
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\textsuperscript{23} Kyoto Protocol, supra note 20, Art. 3, para. 1, and Annexes A and B. The Protocol expresses the obligation in terms of “carbon dioxide equivalent emissions” because it covers greenhouse gases other than carbon dioxide. Id. at Art. 3, para. 1 (emphasis added). In particular, it also covers methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride. Id. Annex A. Each of those has a different “warming potential,” that is, the extent to which it contributes to climate change. Nitrous oxide, for example, has a warming potential 296 times that of carbon dioxide, and one type of hydrofluorocarbon (Freon-12) has a warming potential 10,200 times stronger. See, e.g., Climate Change 2001: The Scientific Basis, Third Assessment Report 349, 391 tbl.6.10 (J. T. Houghton et al. eds., 2001), available at http://www.ipcc.ch/ipccreports/tar/wg1/pdf/TAR-06.PDF.
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\textsuperscript{24} Kyoto Protocol, supra note 20, Art. 3, paras. 1 and 7. See also Danish, supra note 20, at 38-39 (explaining goal of 5.2 percent reduction and also explaining that certain countries, such as the former Soviet Bloc countries, can use a baseline other than 1990).
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\textsuperscript{25} Kyoto Protocol, supra note 20, Annex B.
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\textsuperscript{26} Id.
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designed to provide some flexibility in meeting these obligations, by establishing three different programs under which an Annex B country can obtain emissions credits from other countries with lower abatement costs.\textsuperscript{27} One flexibility mechanism is an international emissions trading system, similar to the acid rain program here in the United States, that allows one party to purchase credits from other parties that have managed to reduce their emissions below the assigned target.\textsuperscript{28} Under the second option, called “Joint Implementation,” an Annex B country can enter into an emissions reduction project in another Annex B country and receive credits in turn.\textsuperscript{29} The third option, called the “Clean Development Mechanism,” also generates credits for Annex B countries, but focuses on emission reduction projects in developing countries.\textsuperscript{30} Utilizing these programs is critical for the Annex B nations as they are required under the Protocol to have sufficient credits to cover all their greenhouse gas emissions—either by reducing emissions within their own borders or by obtaining credits elsewhere.\textsuperscript{31}

The mandatory obligations for only the Annex B (developed) nations stemmed from the arguments made by China and other developing nations in the run-up to the Kyoto meeting.\textsuperscript{32} Those developing countries claimed that because the developed nations had released enormous quantities of greenhouse gases during more than a century of industrialization and strong economic growth, they should be solely responsible for efforts to mitigate climate change.\textsuperscript{33} While that position was controversial, in the

\textsuperscript{27} See Kyoto Protocol, supra note 20, Art. 6 (Joint Implementation), Art. 12 (Clean Development Mechanism), Art. 17 (Trading). An emissions credit represents authorization to emit annually one ton of carbon dioxide or its equivalent. The emissions credits under the Kyoto Protocol go by many different names and acronyms, including “Assigned Amount Units” (AAUs) for the trading program, “Emission Reduction Units” (ERUs) for the Joint Implementation program, and “Certified Emission Reductions” (CERs) for the Clean Development Mechanism program. \textit{Id.} at 43-46.

\textsuperscript{28} Kyoto Protocol, supra note 20, Art. 17. For the details on this program, see Danish, \textit{ supra } note 20, at 43-44.

\textsuperscript{29} Kyoto Protocol, supra note 20, Art. 6. For the details on this program, see Danish, \textit{ supra } note 20, at 44-46.

\textsuperscript{30} Kyoto Protocol, supra note 20, Art. 12. For the details on this program, see Danish, \textit{ supra } note 20, at 46-50.

\textsuperscript{31} Kyoto Protocol, supra note 20, Art. 17.


\textsuperscript{33} \textit{Id.} (explaining that exemptions for developing nations are based on claims of equity because “developed countries have done most of the polluting” and developed countries “have not had the same economic benefits as the developed countries that degraded the global environment in their process of industrialization”). That exemption was based on the notion of “common but differentiated responsibilities” for developing and
end it prevailed. Thus the developing nations face no constraints on their greenhouse gas emissions under the Kyoto Protocol.

As the Protocol was being negotiated, the Senate adopted a unanimous resolution urging President Clinton to repudiate it, both because it did not impose mandatory limits on countries such as China and because legislators feared the lopsided agreement would impose significant costs on the United States without corresponding benefit. In a symbolic gesture, Vice President Al Gore signed the Protocol on behalf of the United States, but the Clinton Administration never presented it to the Senate for ratification. Shortly after President George W. Bush took office, he expressly rejected the agreement in significant part because of the exemptions given to China, India, and other developing nations. Hence, the Kyoto Protocol does not regulate emissions from China or this country.

Today that untenable situation is set to change. Intense political pressure is building around the world for more aggressive efforts to mitigate climate change. One of the factors contributing to the growing public outcry here and abroad is the latest report released by the IPCC in 2007, which recounted the causes and risks of climate change in starker terms than any of developed nations—a notion first enunciated in the Declaration of Principles of the Rio Earth Summit in 1992 and in the Framework Convention, which was one of the three conventions adopted at that Rio Earth Summit. See id. at 253-56 (describing Rio Declaration Principle 7 and its subsequent reflection in the Berlin Mandate); UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, THE RIO CONVENTIONS (1992), http://unfccc.int/essential_background/feeling_the_heat/items/2916.php (describing the Rio Earth Summit and the Framework Convention's adoption there). For more on "common but differentiated responsibilities," see infra text accompanying notes 149-54.

34. That claim was made most specifically in 1995 at the first Conference of the Parties to the Framework Convention (COP-1), held in Berlin, Germany, when the nations decided to build on the "aims" of the Convention by adopting binding emission limits that would only apply to developed nations, not to the developing nations. Danish, supra note 20, at 36; UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, Report of the Conference of the Parties on its First Session, § I(1)(a), U.N. Doc. FCCC/CP/1995/7/Add.1 (June 6, 1995) [hereinafter Berlin Mandate].


37. See Letter from George W. Bush, U.S. President, to Chuck Hagel, Jesse Helms, Larry Craig & Pat Roberts, U.S. Senators (Mar. 13, 2001), available at http://www.whitehouse.gov/news/releases/2001/03/20010314.html (rejecting Kyoto Protocol "because it exempts [eighty] percent of the world, including major population centers such as China and India, from compliance, and would cause serious harm to the U.S. economy").

38. Id.
its previous assessments during the last two decades.\textsuperscript{39} The 2007 report stated, for example, that it is “very likely” that human-induced greenhouse gas emissions are causing the warming of the planet,\textsuperscript{40} and it concluded that continued warming in the coming decades would cause a host of adverse effects, including greater water shortages affecting hundreds of millions of people around the world,\textsuperscript{41} increased coastal and inland flooding,\textsuperscript{42} significant losses of biodiversity,\textsuperscript{43} and more frequent and more intense heat waves.\textsuperscript{44} Those impacts were generally predicted in all parts of the globe, including here in the United States, although some areas, such as the Indian sub-continent and Africa, will suffer the most.\textsuperscript{45}

Growing media coverage of other climate developments has also lent a new urgency to this issue, including stories about melting icecaps and glaciers,\textsuperscript{46} droughts in major parts of the world,\textsuperscript{47} viruses transmigrating north from the tropics,\textsuperscript{48} and the death of the coral reefs.\textsuperscript{49} Similarly, the media gave widespread coverage to the Stern Report, released in October 2006 under the auspices of the British Chancellor of the Exchequer, which estimated that the future adverse consequences of climate change could drain as much as five percent of the global gross domestic product (“GDP”) in the coming years,\textsuperscript{50} whereas immediate, aggressive steps to reduce greenhouse gas emissions would cost only one percent of global GDP.\textsuperscript{51} Finally, playing a critical role in the growing political pressure were former Vice President Al Gore’s movie,\textit{An Inconvenient Truth}, which

\begin{itemize}
\item \textsuperscript{40} \textit{Id.} at 39.
\item \textsuperscript{41} \textit{Id.} at 53.
\item \textsuperscript{42} \textit{Id.} at 30, 31, and 65.
\item \textsuperscript{43} \textit{Id.} at 26, 28, and 42-43.
\item \textsuperscript{44} IPCC, \textit{Climate Change 2007}, supra note 39, at 8, 18, 24, 30, and 43.
\item \textsuperscript{45} \textit{Id.} at 50-52. Some areas of the globe will actually see a short-term net increase in agricultural production as temperatures warm. \textit{Id.} at 48.
\item \textsuperscript{46} Doug Struck, \textit{In Arctic Ice, Lessons on Effects of Warming; Researchers Drill, Map, Blast In Greenland in Hunt for Clues}, \textit{WASH. POST}, June 9, 2007, at A11.
\item \textsuperscript{47} James Kanter & Andrew Revkin, \textit{Scientists Detail Climate Changes, Poles to Tropics}, \textit{N.Y. TIMES}, April 7, 2007, at A1.
\item \textsuperscript{48} Elisabeth Rosenthal, \textit{As Earth Warms Up, Tropical Virus Moves to Italy}, \textit{N.Y. TIMES}, Dec. 23, 2007, at A16.
\item \textsuperscript{50} \textsc{Stern Review, HM Treasury, Stern Review on the Economics of Climate Change i}, ix, xi (2006).
\item \textsuperscript{51} \textit{Id.} at xiii.
\end{itemize}
introduced millions of citizens around the world to the issue of climate change, and the subsequent award of the 2007 Nobel Peace Prize to Gore and the IPCC.\textsuperscript{52}

In response, international efforts are under way on two fronts to secure commitments from the United States, China, and other countries to reduce their greenhouse gases. The first effort is taking place under the auspices of the United Nations, in the so-called “Kyoto II” negotiations, with the hopes of extending obligations on greenhouse gases beyond 2012 when the Kyoto Protocol expires.\textsuperscript{53} The negotiations formally began in Bali, Indonesia, in December 2007, with meetings scheduled throughout this year and next in anticipation of a final agreement to be hammered out in Copenhagen, Denmark, in December 2009.\textsuperscript{54} As of mid-2008, the negotiating parties have decided that Kyoto II will be modeled on the current Protocol, with nationwide caps on greenhouse gas emissions and flexible, market-based mechanisms to allow trading of credits under those caps,\textsuperscript{55} rejecting suggestions for alternative approaches such as a tax on carbon\textsuperscript{56} or industry-by-industry emissions caps.\textsuperscript{57}


\textsuperscript{54} United Nations Climate Change Conference, http://unfccc.int/meetings/cop_13/items/4049.php (last visited Nov. 15, 2008). This was the 13th Conference of the Parties to the Framework Convention. Id.

\textsuperscript{55} See Press Release, United Nations Framework Convention on Climate Change, UN Bangkok Climate Change Talks Reach Agreement on Work Programme for 2008 + Send Important Signal to International Carbon Market (Apr. 4, 2008), http://unfccc.int/files/press/news_room/ press_releases_and_advisories/application/pdf/bangkok_closing_press_release.pdf (“One of the main outcomes of [the parties’] discussion was an agreement that the use of emissions, trading, the Clean Development Mechanism and Joint Implementation should be continued.”).


\textsuperscript{56} A tax was offered as one option in the February 2007 report issued by an important scientific research society known as Sigma Xi at the request of the United Nations. Sigma Xi suggested either a cap and trade program or a tax on carbon to create incentives in the marketplace for energy efficiency and other means to avoid carbon emissions. \textit{See Sigma Xi, Confronting Climate Change: Avoiding the Unmanageable and Managing the Unavoidable} 9 (2007), available at
Running concurrently with the Kyoto II negotiations are more narrowly-tailored discussions, initiated by the United States and involving only the major economic powers (developed or developing), including the European Union, China, India, and a dozen other nations who together represent a significant portion of the greenhouse gas emissions worldwide. These talks began in September 2007 at a meeting in Washington, D.C., followed by a gathering in Hawaii in February 2008, with subsequent meetings scheduled for later in 2008. The Bush Administration’s plan to hold these talks was initially criticized by many policymakers, particularly in the European Union, as an effort to derail the Kyoto II negotiations in order to avoid any mandatory emission limits that might result from them. The Administration, however, has softened its stance in response to strong political pressure and is now starting to recognize the need for such mandatory limits in any multilateral pact.


57. See Eric J. Lyman, ‘Progress’ of Bangkok Talks Shows Much Still to Be Done for 2009 Global Agreement, ENV’T REPORTER, Apr. 11, 2008, at 704 (reporting that in the second major meeting of the Kyoto II negotiations the nations rejected “a proposal from Japan that would have replaced the national cap-and-trade system with one that would have established targets based on industrial sectors.”).


59. See id.


61. Europeans Test, supra note 60 (explaining “Washington’s apparent change of tune”). See also Thomas Fuller & Andrew C. Revkin, Climate Plan Looks Beyond Bush’s Tenure, N.Y. TIMES, December 16, 2007, §1 at 1 (“Since [2005], the Bush administration has been confronted by new scientific data on climate change and by growing political pressure both internationally and domestically.”).

Just as the Bush Administration is coming under increasing pressure to act, so too are members of Congress. As of mid-2008, nearly a dozen bills to control greenhouse gases in one fashion or another are pending in the Senate and House of Representatives. See Victor B. Flatt, Taking the Legislative Temperature: Which Federal Climate Change Legislative Proposal is “Best?”, 102 NW. U. L. REV. COLLOQUY 123, 123 (2007) (describing 10 bills pending as of October 17, 2007). Most notable is America’s Climate Security Act of 2007, S. 2191, 110th Cong. (2007), also known as the Lieberman-Warner bill for its lead sponsors, Senator Joseph Lieberman (I-Conn.) and Senator John Warner (R-Va.), which was introduced on October 18, 2007. That bill was the first to be reported out of the Senate Environment and Public Works Committee and reach the Senate Floor. See J.R. Pegg, First U.S. Climate Emissions Control Bill Heads to Senate Floor, ENV’T NEWS
II. A SYNERGY BETWEEN CHINA'S DOMESTIC ENVIRONMENTAL NEEDS AND THE INTERNATIONAL COMMUNITY'S CLIMATE CHANGE OBJECTIVES

Just as the United States is changing its position, so too is China. Despite the perception by some commentators that the Chinese leadership is unwilling to reign in the nation's greenhouse gases, in fact China now shares with other nations a concern for environmental protection that, if encouraged, could help to secure valuable Chinese promises on climate change. True, the government's willingness to act is driven in part by growing international scrutiny of the country's environmental record, and by the leadership's desire to be viewed as a world leader on this and many other fronts. Apart from external pressures, however, domestic political pressures are driving the Chinese government to address greenhouse gases and other contaminants.

Chinese leaders now recognize—unlike ten years ago perhaps—that climate change will take a terrible toll on the...
nation. The National Climate Change Programme, released in June 2007, documented for the first time a slew of adverse impacts, including, for example, “increased instability in agricultural production” and decreased yields in wheat, rice and maize; a nearly thirty percent reduction by 2050 in the size of the glaciers in western China that provide much of the nation’s drinking water; threats to biodiversity, including a conclusion that “the giant panda [and other native creatures] are likely to be greatly affected”; substantial droughts in the already-arid northern provinces with a “remarkable” increase in precipitation in the already-wet southern provinces; a sea level rise along the coast (which, the report fails to mention, is where the bulk of the population lives); greater “frequency of typhoon[s] and storm surge[s]”, and increases in “the frequency and the intensity of heat waves, [and] hence increase[d] deaths and serious diseases induced by extreme high temperature events.”

The impacts of climate change, however, are fairly remote compared to the Chinese leadership’s more immediate concerns about the tremendous levels of soot, smog and other domestic air pollution that are sickening and killing its citizens. Sixteen of the twenty most polluted cities in the world are located in


67. Id. at 16.

68. Id. at 17. As one author explains, the melting of the glaciers will initially flood the Yangtze and Yellow Rivers, “two of the country's most important sources of water”. They will then dry up. Elizabeth C. Economy, The Great Leap Backward: The Cost of China's Environmental Crisis, FOREIGN AFFAIRS, Sept.-Oct. 2007, at 38, available at http://www.foreignaffairs.org/20070901faessay86503/elizabeth-c-economy/the-great-leap-backward.html [hereinafter Economy, Great Leap Backward].

69. NATIONAL CLIMATE CHANGE PROGRAMME, supra note 66, at 17.

70. Id. at 18.

71. Id.

72. Id.

73. Id. at 19.

China. Only a fraction of the urban population of hundreds of millions of citizens breathes air that meets modern air quality standards. The images one sees while in China are staggering: a gray, toxic cloud hovers over the entire land and blocks out the sun except for a few days a year; citizens wear masks over their faces to protect themselves from the toxic vapors; and laundry becomes blackened with soot just a few hours after being hung out to dry. As China’s highest environmental agency has acknowledged, “living in China’s most-polluted cities is a pulmonary disaster equivalent to smoking two packs of cigarettes a day.” Indeed, by one estimate of the World Bank, as many as 750,000 citizens die prematurely each year due to air pollution.

The central government has recognized that these environmental conditions are unsustainable. As President Hu Jintao said at the 17th National Congress of the Communist Party of China in October 2007, the nation can no longer afford the “excessively high cost” that its rapid economic expansion. That is certainly true in pure economic terms, with the Chinese government itself estimating that current environmental conditions drain away more than three percent of the nation’s annual GDP, as the nation’s farmlands are too contaminated to grow crops; its rivers and lakes are too poisoned for use as

77. Those images from the author’s time in China are confirmed by media reports. See, e.g., id. (reporting that “Chinese cities often seem wrapped in a toxic gray shroud.”); Joseph Kahn & Mark Landler, China Grabs West’s Smoke-Spewing Factories, N.Y. TIMES, Dec. 21, 2007, § A, at 1 (“When residents of this northern Chinese city hang their clothes out to dry, the black fallout from nearby Handan Iron and Steel often sends them back to the wash.”).
78. Duthu, supra note 75, at 153.
82. See Economy, Great Leap Backward, supra note 68, at 5 (10 percent of farmland is polluted and “crop damage from soil pollution” is valued at $2.5 billion).
drinking water;\textsuperscript{83} its citizens are too sick to work;\textsuperscript{84} and health care costs are skyrocketing in response to all the new cases of asthma, lung cancer and other diseases.\textsuperscript{85} And that “green GDP” calculation is probably conservative, with the World Bank estimating the losses to be as great as eight percent of China’s annual GDP.\textsuperscript{86}

This level of environmental destruction is not only economically unsustainable but politically as well. In recent years China has seen an explosion in the number of citizen protests about environmental issues, and some of those protests have even led to violence.\textsuperscript{87} As one observer notes:

In 2005, there were some 50,000 disputes over environmental pollution, according to [Environmental] Minister Zhou Shengxian. From 2001 to 2005, Chinese environmental authorities received more than 2.53 million letters and 430,000 visits by 597,000 petitioners seeking environmental redress.\textsuperscript{88}

In fact, peaceful citizen protests recently forced local officials to halt or delay three proposed projects that residents opposed on environmental grounds. The first occurred in June 2007 in the southern city of Xiamen, when thousands of citizens—spurred by Internet messages and mobile-phone texts—rallied against a proposed chemical plant.\textsuperscript{89} They feared that an explosion or leak of the xylene made there would endanger their health and damage the beautiful Xiamen seaport.\textsuperscript{90} During a subsequent

\textsuperscript{83} Id. at 43, 50. See also Tseming Yang, \textit{Introduction: Snapshots of the State of China’s Environmental Regulating System}, 8 VT. J. ENVTL. L. 145, 145 (2007) (describing spill of industrial chemicals that “contaminated the water supply for millions of people”).


\textsuperscript{85} Kahn & Yardley, supra note 76 (“Health care costs have climbed sharply.”). After that first report in 2006, the government has not issued anymore “green GDP” reports because the results are “too sensitive”. See Shai Oster, \textit{China Scraps ‘Green GDP’ Report}, WALL ST. J., July 17, 2007, at A8.

\textsuperscript{86} Wang, \textit{Role of Law}, supra note 81, at 200 n.22 (citing World Bank report from 1997).

\textsuperscript{87} Duthu, supra note 75, at 154. See also Elizabeth Economy, \textit{A Blame Game China Needs to Stop}, WASH. POST. Dec. 3, 2006, at B1 (reporting that some protests “engaged upward of 30,000 people and resulted in serious injuries and even deaths”).

\textsuperscript{88} Wang, \textit{Role of Law}, supra note 81, at 200.


\textsuperscript{90} Id. at 1 (“Any leak or explosion would put over a million people in danger” and the people realized there was an “industrial monster that threatened to destroy the environment of their beautiful resort city.”).
public meeting, over ninety percent of the citizens present spoke out against the plant.\textsuperscript{91} In a “rare victory” for the citizens, the local officials decided, in the face of this opposition, to abandon the chemical plant’s construction.\textsuperscript{92} The second significant protest occurred in Shanghai in January 2008, when thousands of citizens marched to oppose the planned route of a high speed train that they feared would expose them to radiation from the magnets used in its operation and diminish their property values.\textsuperscript{93} As a result, that project also was put on hold.\textsuperscript{94} Finally, in May 2008, residents of Chengdu took to the streets against a proposed petrochemical plant that they claimed “could pollute the air and water and lead to health hazards.”\textsuperscript{95}

Perhaps what is surprising to Americans is that these citizen protests have any bearing at all on the decisions of an undemocratic, one-party government, since we often assume a populace can only control its leaders through elections. Even without elections, however, Chinese government officials pay very close attention to the citizenry’s demands because they greatly fear any political instability that would end their regime.\textsuperscript{96} That concern may be well-founded in this country of 1.3 billion people with a history of two very violent citizen uprisings just in the 20th century alone, much less in prior centuries—the Communist Revolution of the 1930s and 1940s that toppled the ruling government, and the Cultural Revolution of the 1960s and 1970s that, although initiated by Chairman Mao Zedong, quickly grew out of his control and threw the nation into turmoil for ten years.\textsuperscript{97} Thus, because the Chinese leadership’s ultimate goal is to maintain the social stability or “harmonious development”\textsuperscript{98} necessary to stay in power, the citizen protests

\textsuperscript{91} Id. at 2.
\textsuperscript{92} Id.
\textsuperscript{93} See Howard W. French, Plan to Extend Shanghai Rail Line Stirs Middle Class to Protest, N.Y. TIMES, Jan. 27, 2008, at A8.
\textsuperscript{95} Id.
\textsuperscript{96} Bill McKibben, The Great Leap: Scenes from China’s industrial revolution, HARPER’S MAG., Dec. 1 2005, at 42 (“The Chinese authorities, who value stability above all else…”). See also James Fallows, The $1.4 Trillion Question, ATLANTIC MONTHLY, Jan.-Feb. 2008, at 36 (“While the Chinese government need not stand for popular election, it generally tries to reduce sources of popular discontent when it can.”).
\textsuperscript{97} See MARGARET MACMILLAN, THE WEEK THAT CHANGED THE WORLD: NIXON AND MAO xvii, 77-78, 114 (Random House 2007).
\textsuperscript{98} See French, supra note 93, at A8 (referring to “President Hu Jintao’s policy of
are pushing environmental issues to the forefront of the leadership’s agenda. 99

In response, the central government already has made some important commitments to reduce greenhouse gases and other air contaminants. Three documents in particular lay out the steps China expects to take: (1) the 11th Five-Year Plan,100 issued in March 2006, which is the most recent comprehensive economic planning document adopted by the national government; (2) the first-ever National Climate Change Programme, issued in June 2007,101 which, among other things, established a new “National Leading Group on Climate Change,” headed by Premier Wen Jiabao,102 to be responsible for coordinating efforts to address this important issue; and (3) the December 2007 whitepaper entitled “China’s Energy Conditions and Policies” (the “Energy Plan”).103 In all of these documents, one of the government’s key aims is to improve the nation’s energy efficiency in order to reduce the demand for electricity generated by the coal-burning power plants that spew so many of these pollutants into the air.104 In the Five-Year Plan, the government goes so far as to set a precise target of reducing the nation’s energy consumption per unit of GDP by an annual average of four percent from 2006 to 2010, for a total reduction of twenty percent from 2005 levels.105 The Climate Change Programme and the Energy Plan go on to specify dozens of proposed steps to meet that benchmark, including a shift of economic development away from energy-intensive

99. Kahn & Yardley, supra note 76, at 1 (describing how “China’s leaders recognize that they must change course”).


101. NATIONAL CLIMATE CHANGE PROGRAMME, supra note 66, at 1.


104. See, e.g., NATIONAL CLIMATE CHANGE PROGRAMME, supra note 66, at 26. “China relies on coal for over two-thirds of its energy needs as well as approximately [eighty] percent of its electricity needs. In fact, there are more coal power plants installed in China than in the U.S., the UK and India combined.” Lewis, supra note 102, at 9.

105. CHINESE NAT’L DEV. AND REFORM COMM’N, supra note 100 (referring to “[r]eduction of energy consumption per unit of GDP of about 4%” annually). See also WHITE PAPER ON ENERGY, supra note 103 (projecting a twenty percent decrease in energy consumption between 2005 and 2010 under the 11th Five-Year Plan).
manufacturing toward a high-tech and service-oriented economy,\textsuperscript{106} as well as the closure of inefficient industrial manufacturers, the construction of energy-saving buildings, and reliance on more efficient appliances and lighting.\textsuperscript{107}

The government also seeks improved energy efficiency in the transportation sector, another tremendous source of greenhouse gases and other harmful air pollutants.\textsuperscript{108} For example, China has adopted standards that require an average fuel economy for new vehicles of 36.7 miles per gallon,\textsuperscript{109} which is much more aggressive than the fuel efficiency standards currently in place in the United States. Indeed, under current law this country will not see fuel efficiency at that level until 2020.\textsuperscript{110}

China is also looking for greater reliance on renewable energy sources, with the Energy Plan calling for ten percent of the country’s energy needs to be met with wind, biomass, hydropower, and solar energy by 2010 and fifteen percent by 2020.\textsuperscript{111} It also urges funding for research and development of those sources and funding for other efforts to distribute and popularize the means to use them.\textsuperscript{112} Those same themes are reiterated in the National Climate Change Programme.\textsuperscript{113}

Finally, the Chinese government is not only planning to reduce the amount of energy used in the country and to develop cleaner sources of that energy,\textsuperscript{114} but it is also relying on more traditional “end-of-pipe” methods to control pollutants.\textsuperscript{115} With respect to coal-fired power plants, for example, the plans call for

\begin{enumerate}
\item[106.] National Climate Change Programme, supra note 66, at 38; White Paper on Energy, supra note 103, at 7-8.
\item[107.] National Climate Change Programme, supra note 66, at 36; White Paper on Energy, supra note 103, at 8. One obstacle to further improving energy efficiency is the central government’s control of energy prices, which are kept lower than the market would demand. David Winning, Why Energy Efficiencies Prove Elusive in China, Wall St. J., November 6, 2007, at A6. The government is hesitant to let prices rise because of “[w]orries about social unrest and inflation.” Id.
\item[108.] National Climate Change Programme, supra note 66, at 41.
\item[109.] Lewis, supra note 102, at 11. (Stringent fuel efficiency standards are particularly important because China is adding to its roadways 14,000 new cars a day, and is expected by 2040 to have more cars than the United States). Economy, Great Leap Backward, supra note 68, at 2.
\item[111.] White Paper on Energy, supra note 103, at 11.
\item[112.] Id.
\item[113.] National Climate Change Programme, supra note 66, at 32-34 (referring to hydropower, nuclear, thermal, biomass, wind, solar, geothermal and tidal).
\item[114.] National Climate Change Programme , supra note 66, at 5; White Paper on Energy, supra note 103, at 5.
\item[115.] See e.g., White Paper on Energy, supra note 103 at 16.
\end{enumerate}
greater use of advanced technologies to reduce greenhouse gas emissions, including coal gasification plants and carbon capture and storage facilities.\textsuperscript{116} Similar control technologies are sought in certain key sectors identified by the government, including iron and steel manufacturers, the nonferrous metals industry, and the oil and petrochemical industries.\textsuperscript{117} To be sure, some of these environmental objectives have not yet been met. In 2006, for example, the nation’s energy intensity only declined by slightly more than one percent, according to government figures, rather than the four percent decline expected under the 11th Five-Year Plan.\textsuperscript{118} Similarly, the roughly three percent decline for 2007 was better than the prior year but still short of the mark.\textsuperscript{119} Those missed targets, however, may be less a function of the government’s unwillingness to act than its inability to actually enforce its mandates due to limitations in the environmental legal regime, a topic to be discussed below. The important point is that these plans signal the Chinese leadership’s strong desire to reign in the nation’s environmental degradation.

Thus, in international negotiations on climate change a new opportunity exists to leverage China’s own environmental objectives with the world’s needs. China plans to improve energy efficiency, shift to sources of cleaner energy, build more coal gasification plants, and take other appropriate measures that will reduce not only the soot, smog and other pollutants plaguing that nation but also greenhouse gases.

To convince China to make those commitments enforceable through an international pact, however, the United States and other developed nations will almost certainly have to offer financial and technical assistance to implement these plans. Although the developing nations have been pursuing that type of aid for several years, the United States has been reluctant to fund such efforts in the past.\textsuperscript{120} Recently, however, President

\begin{footnotesize}
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\item \textsuperscript{116} Id. at 35.
\item \textsuperscript{117} Id. at 39-40.
\item \textsuperscript{119} Xinhua News Agency, China Reports Drop in Energy Consumption, Pollution, CHINA.ORG.CN, Mar. 10, 2008, http://www.china.org.cn/environment/features_analyses/2008-03/10/content_12129143.htm. Of course these are government figures, so they must be taken with a grain of salt. Perhaps, however, they reflect a trend if nothing else.
\item \textsuperscript{120} Darren Samuelsohn, Hawaii Talks Take Aim at Post-Kyoto Agreement,
\end{itemize}
\end{footnotesize}
George W. Bush announced that the United States will create a $2 billion technology fund to help developing nations like China and India make greater use of clean energy sources. Likewise, at the Bali round of the Kyoto II negotiations in December 2007, the developed nations agreed to increase funding to help the developing nations. Such aid makes sense because it will help build the internal infrastructure and technical capability necessary to continue the developing countries on a lower-emissions path for years to come. More immediately, that aid will entice China to participate in an international climate change pact since it will be able to use that aid to address not just greenhouse gases but other domestic needs as well.

Still, simply because China’s domestic interests align in this key respect with those of other nations does not assure the success of the climate change negotiations. While China indicates a willingness to cooperate in international efforts to address climate change, it expresses strong reluctance to be bound by any firm greenhouse gas limits, especially if we Americans continue to refuse any obligations of our own, as we did under the Kyoto Protocol. At the September 2007 meeting


122. Samuelsohn, supra note 120 (describing offers from Japan, Norway, the United Kingdom, the United States and Canada to provide funding for developed countries to gain access to advanced technology and to also compensate them for deforestation).

123. In a similar vein, China agreed for the first time ever to mandatory obligations to phase out hydrochlorofluorocarbons (HCFCs) in significant part because the developed countries agreed to increase funding to help China and other nations convert the refrigeration plants that emit HCFCs. See John F. Fialka, *Developing a Warming Plan: U.S. Summit Explores Fund to Cut Emissions of Emerging Economies*, WALL ST. J., Sept. 28, 2007, at A5; see also Posner & Sunstein, supra note 56, at 1608–09 (noting that China was given “side-payments” under the Montreal Protocol and “may well demand such payments in the context of climate change.”).

124. As Ma Kai, the head of the National Development and Reform Commission, said when that Cabinet-level agency released the National Climate Change Programme in June 2007, “Although we are not committed to quantified emissions reduction, it does not mean we do not want to shoulder our share of responsibilities.” See China Promises to Control, supra note 63. As discussed infra, China opposes a mandatory cap on its greenhouse gases because it fears the cap will be set so low as to stifle economic growth. See infra text accompanying note 159.

125. See Joanna I. Lewis, *China’s Strategic Priorities in Climate Change Negotiations*, 31 WASH. Q. 155, 162 (2007):

In June 2005, then–SEPA director Xie Zhenhua, now a vice minister of the
of representatives from the world’s major economies, for example, one Chinese environmental advocate indicated that her nation “will follow if the European Union and the United States lead.” But just as China is pushing to bring the United States to the bargaining table, President Bush and some other American political leaders are also making the United States’ involvement conditional on the participation of China, India and the other emerging economies. Hence, the time has come for both nations to stop pointing fingers and, instead, to recognize an opportunity to satisfy their mutual interests by jointly agreeing to address greenhouse gases.

III. “COMMON BUT DIFFERENTIATED RESPONSIBILITIES” FOR THE UNITED STATES AND CHINA

China and the United States now share the dubious distinction of being the world’s top emitters of greenhouse gases, so it is tempting to assume that they should be treated the same in the climate change battle. Yet as the United States proceeds forward in its negotiations with China, we must keep in mind the social and economic factors that suggest the Chinese obligations under any international pact should be of a different nature than our own.

For example, although it is true that China’s annual greenhouse gas emissions recently surpassed those of the United States, this fact should not surprise us at all since China has a

NDRC, stated that he hoped “that some countries would, according to the obligations which are provided for in the Kyoto Protocol, implement in a substantive way their obligations and take up their commitments” and that, “on the Chinese side, the Chinese government would make its own decision after making some assessments of the implementation by other countries.” In this statement, Xie was signaling that China was waiting to see whether the developed countries would follow through on their UNFCCC obligations to lead them in taking on mitigation commitments. This position was reinforced recently by Chinese foreign minister Yang Jiechi, who said in September that developed countries should “continue to take the lead in reducing emissions after 2012.”

127. See, e.g., Fuller & Revkin, supra note 61, at 1 (citing White House concern about the Bali round of Kyoto II negotiations because “developing economies must likewise act” to address greenhouse gas emissions); Pegg, supra note 61 (reporting opposition of Senator Larry Craig (R.–Idaho) to climate change legislation unless China and India also act). Other policymakers argue that America’s refusal to act until the Chinese do so makes no sense because we need to lead by example. Id. (quoting Senator Ben Cardin (D–Md.) as saying, “If we are going to get China to move, we have got to show leadership.”).
128. See supra text accompanying note 4.
129. Id.
billion more people than our nation. When emissions are compared to the overall population, the lavishness of the American lifestyle becomes plainly evident, with per capita greenhouse gas emissions in the United States nearly five times as high as per capita emissions in China.130

The historical levels of greenhouse gas emissions are also vastly different, given the two nations’ very distinct economic development patterns. Because the United States has been industrialized for nearly a century longer than China, its cumulative emissions are four times higher,131 with those gases lingering in the atmosphere and contributing to climate change for many decades.132 Although China’s greenhouse gas emissions are projected to grow very substantially in the future so that the imbalance in the cumulative levels will lessen with time,133 that growth is due in part to what Professor Irma Russell calls “pollution by proxy,”134 in that the United States and other developed countries have exported their manufacturing operations and emissions to China.135 A study by researchers at Carnegie Mellon University, for example, found that if all the goods imported into the United States in 2004 had been produced domestically America’s carbon dioxide emissions would have been as much as thirty percent higher.136 A similar study by the Tyndall Center for Climate Change Research estimated that roughly twenty-three percent of the greenhouse gas emissions in China are generated in the production of goods exported to other

131. CLIMATE CHANGE MITIGATION MEASURES, supra note 118, at 1 (“In cumulative terms, China’s contribution to global emissions is about one-fourth the United States”); see also Posner & Sunstein, supra note 56, at 1579 (explaining that China represents eight percent of world-wide stock of carbon dioxide emissions and the United States represents twenty-nine percent).
132. Fred Pearce, Saving the World, Plan B, NEW SCIENTIST, Dec. 13, 2003, at 6 (“CO2 and other greenhouse gases linger in the atmosphere for a century or more.”)
133. CLIMATE CHANGE MITIGATION MEASURES, supra note 118, at 1 (describing projected rise in China’s emissions).
134. E-mail from Irma Russell, Professor of Law, The University of Tulsa College of Law, to author (July 1, 2008) (on file with author).
135. See Kahn & Landler, supra note 77, §A, at 1 (recounting how western countries have shifted heavy industry and manufacturing to China, making it easier for them to reduce GHGs just as China’s numbers have been increasing dramatically).
Finally, and perhaps most importantly, the great majority of China’s citizens continue to live in extreme poverty. The World Bank estimates that nearly 300 million Chinese people—a population the size of the entire United States—live on the equivalent of two American dollars per day, the relevant World Bank poverty line. Family upon family, particularly in rural villages, lives in huts with no doors, windows, electricity or running water. They struggle to grow enough food simply to feed themselves and sometimes cannot afford to heat their homes, much less access basic necessities such as adequate health care. While the poverty is plainly evident when one is in China, most Americans may not fully comprehend it, especially when we see photos of the modern skyscrapers in Shanghai or the glamorous Olympic Village in Beijing with its state-of-the-art technology and architecture, or read about the $1.4 trillion China owns in U.S. Treasury notes. Although it is certainly true that a growing middle- and upper-class, primarily

138. MILAN BRAHMBHATT, WORLD BANK, EAST ASIA: TESTING TIMES AHEAD 1, 59 (2008), available at http://siteresources.worldbank.org/INTAP/HALFYEARLYUPDATE/Resources/550192-1207007015255/EAPUpdate_Apr08_fullreport.pdf (reporting an estimate for 2007 of 286.6 million Chinese citizens living on $2 or less per day). The World Bank presents data on both a $2 per day poverty level and a $1 per day level, with the latter being most appropriate for the “low-income countries.” See Shaohua Chen & Martin Ravallion, How Did the World’s Poorest Fare in the 1990s? 1, 8–10 (World Bank, Policy Research Working Paper No. 2409, 2000), available at http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2000/08/26/000094946_0081406502730/Rendere/PDF/multi_page.pdf (“The original $1/day poverty line was chosen as being representative of the poverty lines found amongst low–income countries. . . We also give results for twice this line (to give a poverty line more typical of low–middle income countries).”). The World Bank estimates that in 2007 there were 83.7 million Chinese citizens living on only $1 or less per day. BRAHMBHATT, supra, at 59. 
139. Cam MacMurchy, China’s Rural Areas are Falling Behind; The Economic Boom in the Cities isn’t being Heard in the Countryside, TIMES COLONIST (Victoria), June 24, 2007, at D2 (describing village where homes “didn’t even have four walls,” “didn’t have any electricity” and were “open to the elements”); Howard W. French, Lives of Poverty, Untouched by China’s Boom, N.Y. TIMES, January 13, 2008, § 1, at 4 [hereinafter “French, Lives of Poverty”] (describing many villages where people “lack basic comforts like running water”). 
140. French, Lives of Poverty, supra note 139, at 3 (quoting resident saying “We grow just enough food for ourselves to eat.”).
141. Id. (“[P]eople are too poor to heat their homes in the winter”). 
142. MacMurchy, supra note 139, at D2 (describing poor villagers unable to pay even $1.50 per year for medical insurance and having to spend “a lifetime’s savings” for “a simple operation”). 
in the urban, coastal areas of China, has benefited from the explosion of the country’s economy during the last thirty years, the vast majority of the population continues to live in abject poverty.\footnote{French, \textit{Lives of Poverty}, supra note 139, at 2 (describing great income disparities between “the booming coast” of China and other areas of the country, including its rural “heartland”).}

The Chinese central government has placed the highest priority on expanding the nation’s economy in order to improve the living standard of its enormous population.\footnote{See, e.g., \textit{White Paper on Energy}, supra note 103, at 1 (“[D]eveloping [China’s] economy and eliminating poverty will, for a long time to come, remain the main tasks for the Chinese government and the Chinese people.”).} That goal deserves our respect and support under international law, which recognizes the needs of nations to improve the socio-economic status of their peoples. The preamble to the United Nations Charter, for example, states that one of its four primary purposes is “to promote social progress and better standards of life” and that, to these ends, the members of the United Nations pledge “to employ international machinery for the promotion of the economic and social advancement of all peoples.”\footnote{U.N. Charter Preamble.} Similarly, the United Nations Framework Convention on Climate Change, which the United States ratified, expressly recognizes that efforts to regulate those gases should be conducted in a way that, among other things, “enable[s] economic development to proceed in a sustainable manner.”\footnote{United Nations Framework Convention on Climate Change, art. 2, U.N. Doc. A/AC.237/18 (May 9, 1992), reprinted in 31 I.L.M. 849 (1992) [hereinafter Framework Convention].}

Thus, China’s dire economic needs and its relatively low cumulative and per capita emissions of greenhouse gases\footnote{China and Climate Change, supra note 130; Climate Change Mitigation Measures, supra note 131.} are all factors that eliminate any legitimate basis to equate that nation with the United States and other developed nations in the upcoming negotiations. Indeed, several multilateral agreements that the United States has already signed, including the Framework Convention,\footnote{United Nations Framework Convention on Climate Change, art. 2, U.N. Doc. A/AC.237/18 (May 9, 1992), reprinted in 31 I.L.M. 849 (1992) [hereinafter Framework Convention].} the 2007 statement from the Asia-Pacific Economic Cooperation forum,\footnote{Asia-Pacific Economic Cooperation, Sydney APEC Leaders’ Declaration on Climate Change Energy Security and Clean Development 1, 1 (2007).} and the Action Plan from
the Bali round of the Kyoto II negotiations, recognize that the nations of the world have “common but differentiated responsibilities” in the fight against climate change. This key notion emphasizes that because the developed nations have contributed the bulk of the greenhouse gases to date and have benefitted economically from the industrialization that has released those pollutants, they should take the lead in efforts to mitigate climate change. It was this notion of “common but differentiated responsibilities” that formed the basis of the Bali Action Plan, available at http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf. The future international climate change arrangements need to reflect differences in economic and social conditions among economies and be consistent with our common but differentiated responsibilities and respective capabilities.

In his recent remarks on climate change negotiations, President George W. Bush has given a nod to this notion: “We recognize that different nations will design different strategies, with goals and policies that reflect their unique energy resources and economic circumstances.” Office of the Press Secretary, President Bush Discusses Climate Change (April 16, 2008), available at http://www.whitehouse.gov/news/releases/2008/04/20080416-6.html.

Likewise, legislation on Capitol Hill also reflects a recognition of the different levels of economic development in China and the United States; The Lieberman-Warner bill that the Senate debated in mid-2008 included a provision that would have demanded “emission reduction certificates” for goods produced in any foreign country that was not taking action on greenhouse gases “comparable” to America’s greenhouse gas control regime, but in determining whether a country’s action was “comparable” to the United States, the provision directed a consideration of “the level of economic development of the foreign country.” America’s Climate Security Act, S. 2191, 110th Cong. (2007).

Nevertheless, they acknowledge that the United States should participate in an international agreement to control greenhouse gases based on a “welfarist approach,” which would have the developed nations “engage in a degree of self-sacrifice” in order to improve the overall welfare of the world’s people. See Halvorssen, supra note 33, at 253-254. Professors Eric Posner and Cass Sunstein question the assumptions underlying this notion. Posner and Sunstein, supra note 56, at 1607-1608. They critique, for example, the corrective justice argument: the notion that because the United States has emitted great quantities of greenhouse gas emissions in the past, it now has an equally great obligation to reduce its emissions. Id. at 1572, 1591-1602. That argument fails, in their view, because it incorrectly treats nations as if they were individuals, with intentions and actions that can be judged with traditional concepts from tort law. Id.

Similarly, Posner and Sunstein critique the distributive justice argument: the claim that because of its great wealth the United States has a special duty to pay more towards the efforts to address climate change. Id. at 1567, 1583-91. They suggest it fails because “aggressive emissions reductions on the part of the United States are not an especially effective method for transferring resources from wealthy people to poor people” and “if this is the goal, many alternative policies would probably be better.” Id. at 1591. Nevertheless, they acknowledge that the United States should participate in an international agreement to control greenhouse gases based on a “welfarist approach,” which would have the developed nations “engage in a degree of self-sacrifice” in order to improve the overall welfare of the world’s people. Id. at 1572.

Posner and Sunstein suggest China might claim that emission allocations under an international treaty should be made on a per capita basis, and they question the validity of that claim. See id. at 1602-10. It is unclear at this time, however, whether China is actually demanding that type of allocation or whether, instead, it is simply using
differentiated responsibilities” that, in the context of the Kyoto Protocol, led to the decision not to require China and the other developing nations to regulate their greenhouse gas emissions.\textsuperscript{154} Today, no country, not even China, is seriously arguing for a wholesale exemption from any greenhouse gas restrictions.\textsuperscript{155} Instead, in a very important concession, China and the other developing nations agreed at the Bali round of the Kyoto II negotiations in December 2007 that they would take steps to mitigate climate change that are internationally “measurable, verifiable, and reportable.”\textsuperscript{156} Hence, the developing nations recognize their own duties to act.

Nevertheless, the “common but differentiated responsibilities” of the developed and developing nations mean that American and Chinese commitments in any future international climate change pact will differ. Such a pact will likely ask the United States and other developed countries to agree to reduce their emissions substantially from current levels. At the Bali round of the Kyoto II negotiations, for example, the European Union called for the developed nations to reduce emissions by forty percent below 1990 levels by the year 2020, and to reduce to fifty percent below the 1990 level by the year 2050.\textsuperscript{157} Such a reduction in overall greenhouse gas emissions from current levels, however, would not be appropriate for China and other developing countries that are rightfully looking to substantially build their economies, with a corresponding increase in greenhouse gas emissions, in order to improve the living standards of their citizens.

Thus, participating countries should consider two alternative approaches for any international agreement seeking to set some type of cap on China’s greenhouse gas emissions. First, the cap could be articulated as a total annual emissions

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\textsuperscript{154} See supra text accompanying notes 33-34 (describing negotiations leading to Kyoto Protocol); Halvorssen, supra note 33, at 256 (explaining how the Kyoto Protocol incorporated the notion of “common but differentiated responsibilities” to exempt the developing nations).

\textsuperscript{155} Instead, according to comments of Su Wei, “deputy head of the Chinese delegation” to the Bali round of the Kyoto II negotiations, China is willing to “make its contributions to climate protection.” See Sun Xiaohua, New global warming pact in sight, China cooperative, CHINA DAILY, December 15, 2007, www.chinadaily.com.cn/china/2007-12/15/content_6324066.htm. True, China is concerned about an absolute cap on its greenhouse gases, see supra text accompanying notes 113, 146, but that is not the same as saying China refuses entirely to reign in its emissions.

\textsuperscript{156} Bali Action Plan, supra note 151, at Paragraph 1(b)(ii).

\textsuperscript{157} Fuller & Revkin, supra note 61, at 2.
limit above current levels in order to allow for growth. However, predicting China’s cumulative emissions, even a few years from now, will depend on certain assumptions about the pace of economic and emissions growth that may prove to be incorrect.\footnote{See, e.g., Stewart & Wiener, supra note 65, at 106 (“E[ven if the cap is at the business-as-usual level, that level can be difficult to forecast, and actual growth might turn out to be higher”).} As a result, reaching political agreement on the cap might be difficult. China has already indicated that it fears such an agreement would set a cap too low, stifling economic growth,\footnote{Id.; Lewis, supra note 102, at 11 (“In the view of developing countries, absolute greenhouse gas targets like those under the Kyoto Protocol amount to a cap on their economic growth”).} while the developed nations should be concerned about setting the cap too high, which would allow excessive growth in China’s greenhouse gases and undercut the price of emissions credits in the trading scheme. That is not to say that setting a cap based on total annual emissions would be impossible, but it will no doubt be challenging.

Under the alternative approach, China’s cap could be articulated as a performance metric such as greenhouse gas emissions per unit of GDP,\footnote{See, e.g., Stewart & Wiener, supra note 65, at 106 (suggesting this metric as well as other options, such as “allowance assignments even above their business-as-usual level,” “use of a safety valve mechanism,” and “interim revisions of targets based on specified criteria or triggers or both.”). See also PEW CTR. ON GLOBAL CLIMATE CHANGE, INTERNATIONAL CLIMATE EFFORTS BEYOND 2012: REPORT OF THE CLIMATE DIALOGUE AT POCANTICO, 14 (2005), http://www.pewclimate.org/docUploads/PEW_Pocantico_Report05.pdf (last visited Nov. 15, 2008) (offering various suggestions including “indexed or ‘intensity’ targets limiting emissions relative to an indicator such as GDP”).} otherwise known as its “carbon intensity.”\footnote{UNION OF CONCERNED SCIENTISTS, HOW TO AVOID DANGEROUS CLIMATE CHANGE: A TARGET FOR U.S. EMISSIONS REDUCTIONS i, 11 (2007), available at http://www.ucsusa.org/assets/documents/global_warming/emissions-target-report.pdf.} This approach would allow China’s economy to grow, but it would require its emissions to grow more slowly than if left uncontrolled.\footnote{ENERGY INFO. ADMIN., U.S. DEP’T OF ENERGY, ANNUAL ENERGY OUTLOOK 2006 with PROJECTIONS TO 2030 (2007). See id. at 10 (citing U.S. DEP’T OF ENERGY, ANNUAL ENERGY OUTLOOK 2006 with PROJECTIONS TO 2030 (2007)).} To meet such a carbon intensity cap, China would have to reduce the demand for energy altogether (by improving the energy efficiency of its industries, transportation sector, buildings, consumer goods, and other segments of the economy); shift more of that energy supply to non-carbon sources, such as solar, wind and biomass power; and use advanced technologies to reduce greenhouse gas emissions from coal-fired power plants. The Chinese government has already committed to these steps, for its own domestic purposes, in its Climate
Change Programme and Energy Plan. Setting a carbon intensity cap in an international agreement could push China to do even more on this front.

Which type of cap should be selected depends on a number of different issues, including whether one would more effectively facilitate a world-wide trading system for emissions credits than the other, and whether one would create more incentives for manufacturers in highly-regulated nations to move more production into less-regulated nations, thereby defeating efforts to reduce world-wide levels of greenhouse gases. Those complex questions are beyond the scope of this article, but the important point is that, in designing a cap for China under a new climate change pact, the international community should recognize the nation’s continuing need to grow its economy and its corresponding emissions in order to alleviate the extreme poverty that still plagues the bulk of its citizenry.

Of course, suggesting that China bear responsibilities “common but differentiated” from those of the United States raises the issue of how to distinguish between developed and developing nations. In other words, at what point will China’s economy have sufficiently expanded so that it must not simply slow the growth of its greenhouse gas emissions but rather stabilize or even reduce those emissions? Any number of factors might go into that decision, some objective such as per capita GDP, and some more subjective. It seems safe to say, however, that with only twenty-five years of economic development and hundreds of millions of citizens still living in poverty, China has not yet crossed that line.

Finally, even if China is able to develop in an environmentally-sustainable manner, the growth of its greenhouse gas emissions, however slow, will impose a heavy burden on the industrialized nations to substantially decrease our own emissions in order to prevent catastrophic climate change. How far we have to push ourselves will depend in part on how successful we are in helping China’s efforts, but the reductions needed from the developed world will be dramatic under almost any scenario. The Union of Concerned Scientists (“UCS”), for example, predicts that by the year 2050 the United States will have to reduce its emissions at least eighty percent below 2000 levels, beginning with an annual four percent reduction as early as 2010. UCS also emphasizes that

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163. See supra text accompanying notes 101-17.
164. UNION OF CONCERNED SCIENTISTS, supra note 161, at 11, 14. UCS assumes that China will slowly increase its emissions until a peak in 2020 or 2025, and then reduce
“[t]iming is critical” because if emissions in the United States continue to increase until, say, 2020, then in the long run far greater emission reductions will be required in order to mitigate climate change at greater expense and difficulty than if emissions peak in 2010.\textsuperscript{165} Considerable efforts will be required to achieve such extensive reductions here in the United States and in other industrialized countries, but that burden is entirely appropriate given the century or more in which we have contributed the vast quantities of greenhouse gases that are now warming the planet.

IV. THE NEED FOR IMPROVEMENTS IN CHINA’S RULE OF LAW

Any international agreement must address the potentially significant barriers within China’s legal regime to effective implementation and enforcement of its environmental commitments. Despite what might be expected in this state-controlled society,\textsuperscript{166} the central government actually struggles to implement its national laws and policies at the local and provincial level because of substantial weaknesses in its environmental regulatory system in particular and because of more fundamental flaws with implementation of the rule of law generally in China.

Although China has adopted many important environmental laws and regulations during the last twenty-five years, enforcement of those requirements continues to be weak. The potential fines for environmental violations, for example, are so low that the regulated community has little incentive to comply with the law.\textsuperscript{167} Furthermore, those penalties are not even enforced on a regular basis because the central environmental bureaucracy in Beijing traditionally has been poorly funded and has lacked the personnel necessary to investigate and litigate enforcement actions.\textsuperscript{168} As a result, it relies heavily on local

\textsuperscript{165} Id. at 10, 14.

\textsuperscript{166} Maureen Fan, \textit{Gray Wall Dims Hopes of ‘Green’ Games}, October 16, 2007, WASH. POST, at A01 (noting that supposedly “China has a lot more control over sources of manufacturing” than Los Angeles did when the Olympics were held in that California city, because China “has a little bit more authoritarian capability”).

\textsuperscript{167} Economy, \textit{Great Leap Backward}, supra note 68, at 38 (describing how fines are “so low that factory managers often prefer to pay them rather than adopt costlier pollution-control technologies”). See also Wang, \textit{Role of Law, supra} note 81, at 204. (describing how fines under China’s Environmental Impact Assessment law “are capped at a maximum of about US$25,000, a fraction of the overall cost of most major projects”).

\textsuperscript{168} Wang, \textit{Role of Law, supra} note 81, at 199 & n.12 (China’s national environmental bureaucracy has only 2,200 employees nation-wide as compared to 18,000 employees in the United States Environmental Protection Agency).
officials169 who often refuse to enforce the national environmental requirements because they have a personal financial stake in the very businesses they are supposed to be regulating;170 they are receiving bribes from those entities;171 or they find it difficult to shut down the local polluting factory when it provides much-needed income to neighbors.172 In addition, until very recently, a local official’s ability to retain his job depended exclusively on demonstrating improvements in the local economy, which often discouraged enforcement of costly environmental requirements.173

Moreover, while in the United States citizen suits serve as a backstop to lax governmental enforcement efforts, the same is not true in China. A private citizen in America—or a non-governmental organization (“NGO”) acting on behalf of that citizen—can bring suit against polluters to recover statutorily-defined penalties that are paid to the United States Treasury, with the plaintiff’s litigation costs generally paid by the defendant.174 Most importantly, the citizen does not have to show precisely how the polluter’s violations caused harm to the environment or to health of the citizen. Rather, she only has to show that the violations “lessened” the “aesthetic and recreational values” that the citizen enjoyed from a clean environment.175 By contrast, Chinese residents, for the most part, can only sue polluters for personal injuries caused by exposure to contamination, which requires the plaintiffs to identify their precise harms, assign a monetary value to them, and demonstrate a direct causal link to the defendant’s behavior. 176 These requirements severely limit the citizens’ ability to


170. Economy, Great Leap Backward, supra note 68, at 7-8.

171. See Stanley Lubman, Looking for Law in China, 20 COLUM. J. ASIAN L. 1, 74 (2006) (explaining that “China’s poorly paid government officials are highly vulnerable to corruption”).

172. China: A Lot to be Angry About, THE ECONOMIST, May 1, 2008, 49 available at http://www.economist.com/world/asia/displaystory.cfm?story_id=11293734 (describing how local officials protect “the factories [that] provide” jobs to local residents because “the anger of laid-off workers has long been one of officialdom’s biggest worries”).


enforce environmental requirements in China. In addition, although Chinese citizens technically can rely on environmental NGOs for assistance, only a limited number of those organizations operate legally in the country at this time.\textsuperscript{177}

Unfortunately, the Chinese legal system also suffers from more fundamental flaws. Of greatest concern are weaknesses within the judiciary. Judges apply legal requirements inconsistently or rule in favor of entrenched political or economic interests because they are beholden to the local officials who pay their salaries and who pressure them to protect the enterprises that provide revenue for the local government.\textsuperscript{178} In addition, many judges are poorly trained\textsuperscript{179} and unfamiliar with their responsibilities to enforce the law uniformly.\textsuperscript{180} Finally, the judiciary is rife with corruption,\textsuperscript{181} so polluters can often buy their way out of environmental obligations.

These limitations are not entirely surprising since the country’s current legal system is less than thirty-five years old, with essentially all law schools and legal institutions shut down during the Cultural Revolution and the years leading up to it.\textsuperscript{182} To their credit, Chinese leaders are very aware of the need for legal reform in order to improve environmental conditions. In a December 2005 report, for example, the State Council, the most high ranking executive body in the central government, emphasized the importance of taking steps to correct the “grim” environmental situation in the country, noting that “the environmental protection legal system is not complete . . . and where laws exist they are not followed and enforcement is not

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\item \textsuperscript{178} Wang, Role of Law, supra note 81, at 202; Wang, Chinese Enforcement, supra note 169, at 176-77; Donald C. Clarke, China’s Legal System and the WTO: Prospects for Compliance, 2 WASH. U. GLOBAL ST. L. REV. 97, 107, 113 (2003).
\item \textsuperscript{179} Wang, Role of Law, supra note 81, at 202; Clarke, supra note 178, at 108.
\item \textsuperscript{180} For example, at a training conference in Beijing for judges and lawyers sponsored by the Natural Resources Defense Council, it was noted that “basic precepts of the American legal system—such as the notion that judges must enforce the positive law and cannot allow the use of illegal means to achieve political benefits, or economic gain or high moral benefit—seemed novel to many of the Chinese lawyers participating in [NRDC’s] conference.” NAT. RES. DEF. COUNS., ENVIRONMENTAL LAW IN CHINA, available at http://www.nrdc.org/international/ochinalaw.asp (last visited Nov. 15, 2008).
\item \textsuperscript{181} See Jerome Alan Cohen, China’s Legal Reforms at the Crossroads, FAR E. ECON. REV., March 2006, at 25 (referring to “massive corruption” in the courts); Jim Yardley, A Judge Tests China’s Courts, Making History, N.Y. TIMES, Nov. 28, 2005, at A1 (explaining that “political pressure on judges is routine”).
\item \textsuperscript{182} MACMILLAN, supra note 97, at 114.
\end{itemize}
strict." As one step to improve this situation, the State Environmental Protection Administration ("SEPA") recently was elevated to the level of a government ministry and renamed the Ministry of Environmental Protection ("MEP"). In addition, the central government has begun to include environmental criteria in the performance evaluations of local and provincial officials. Moreover, some environmental laws have been amended to increase the penalties for violations, although the laws still do not recoup the economic benefit the violator gains from its noncompliance, thus failing to eliminate all financial incentives to break the law. The government is also considering expanding environmental litigation beyond merely the compensation cases for victims to include also litigation on behalf of the public generally, either by non-governmental organizations or by the procuratorate (the government attorneys who prosecute criminal cases and oversee the courts and other agencies in the implementation of civil law).

In addition, some segments of the central government recognize the need for broad reforms of the judicial system. As Professor Donald Clarke notes, for example, proposals regularly have been considered for Beijing to oversee the staffing of courts, pay the judges from national coffers, and offer higher judicial salaries in order to attract more qualified candidates and soften the temptation to take bribes. To date, however, the central government has achieved only limited success on these measures, in part because of its unwillingness to engage in political battles with local officials or take on the enormous financial burdens these changes would require.

While China’s substantial legal improvements over the last few decades should be commended, and while legal circles within China and abroad understand the need for further changes,
the connection between China's efforts to address climate change and the need for legal reforms is less well-recognized. Unless China makes substantial changes in the nation's ability to enforce its environmental requirements, the success of any Chinese intentions to reduce greenhouse gases could well be in jeopardy. Thus, in the ongoing climate change negotiations, the international community should push China to formally commit to the types of changes it has already contemplated, including further increases in the penalties for violations of environmental requirements, citizen suits on behalf of the public interest, better legal training for judges, and higher judicial salaries paid from national funds.

To encourage and enforce these commitments, a multilateral agreement could rely on two, non-exclusive options—one a "carrot" and the other a "stick." First, the developed countries could offer China financial and technical assistance on the condition that it makes specific changes in its legal system. Such a program would be comparable to the World Bank's efforts to give aid to nations that take steps to ferret out corruption and establish other "good governance" mechanisms. Various questions about the details—such as whether to give aid only after reforms are in place, or give it concurrently with the government's efforts to initiate the changes—would have to be addressed, but the basic notion of trying to entice China to make improvements deserves consideration.

Second, a multilateral climate change agreement could also impose a sanction on China if it fails to make specified changes in its legal system. Precedent exists for just such an approach

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in the commitments that China made in order to become a member of the World Trade Organization (“WTO”) in late 2001, by which it agreed to make modest improvements in its trade-related legal system and to be subject to potential trade sanctions if it did not. In the climate change context, using trade sanctions—although not entirely out of the question—may be less appropriate than relying on, say, a sanction more closely related to environmental aims. For example, one option might be to require China to reduce its greenhouse gas emissions more aggressively if it fails to make needed legal reforms. The Kyoto Protocol imposes a similar sanction, at least in theory, to punish Annex B countries that fail to meet their emissions obligations under the Protocol. This type of sanction may be ineffective, however, if the ongoing failures of the legal system prevent China from meeting more stringent emissions targets. Alternatively, one other sanction under the Kyoto Protocol may hold even more promise. If an Annex B country fails to meet any of its commitments, then it is banned from participating in emissions trading or in projects under the Joint Implementation program or Clean Development Mechanism, all of which are designed to allow nations to meet their emissions obligations in a cost-effective manner. Because China, like any other nation under a future climate change pact, will no doubt want to rely very heavily on those options, the threat of a ban if it fails to implement needed legal reforms may be very powerful.


196. In particular, as specified in the Marrakesh Accords, which essentially are the implementation plans for the Kyoto Protocol developed in 2000, if an Annex B country has “excess emissions”—that is, it does not hold enough credits to cover all its emissions in the 2008-2012 period—then in the “second commitment period” its allotted credits can be reduced by the “number of tonnes equal to 1.3 times the amount in tonnes of excess emissions.” Conference of Parties to the United Nations Framework Convention on Climate Change, Seventh Session, Marrakesh, Morocco, Oct. 29-Nov. 9, 2001, Report of the Conference of Parties on Its Seventh Session, add., pt. 2., vol. 3, p. 76, 5(a), FCCC/CP/2001/13/Add.3, Jan. 21, 2002, available at http://unfccc.int/resource/docs/cop7/13a03.pdf [hereinafter Marrakesh Accords]. In practice that sanction is actually flawed for two reasons. First, it just compounds the problem by asking a country that fails to sufficiently reduce its emissions to obtain even greater reductions, which is similar to punishing an unsuccessful high jumper by requiring her to jump even higher. Second, it calls for the additional emissions reductions to occur in the “second commitment period,” which will begin after the Kyoto Protocol expires, so this penalty has no force unless nations enter into a subsequent agreement for emissions reductions, which might or might not reflect the earlier “sanction.”

197. See Marrakesh Accords, supra note 196, at 5; Danish, supra note 20, at 50-51.

198. See supra text accompanying notes 27-30.
How far the Chinese leadership would go in agreeing to these changes remains unclear. On the one hand, the leaders may balk if they perceive the United States as trying to impose its own particular form of government on China. Moreover, some of these modifications, particularly those focused on the broader legal scheme, may move closer toward accountability of government officials than at least some members of the leadership are willing to bear right now. For example, some might see allowing more citizen suits as an unwelcome first step toward emboldening citizens to sue not only private entities but also government agencies and their leaders for statutory violations, which only occurs sparingly right now. Similarly, some officials might dread insulating the judiciary from local political influence because it might eventually lead to a judiciary independent from even the central government’s pressures.

On the other hand, international calls for legal reforms may actually be welcome by some in the Chinese leadership because the changes would help improve the environmental conditions in the country by strengthening the enforcement of the nation’s pollution laws and regulations. Just as China’s WTO commitments have been described as a “mast to which [the] government[] can tie [itself] to escape the siren-like calls of various pressure groups,”199 so too Chinese obligations to improve its legal system that are enshrined in a multilateral climate change pact could give the central government the excuse it needs to push back against the local officials and courts that protect polluters. In short, although we must handle calls for legal reforms in China with sensitivity to the competing goals within the government, we should not overlook the need to address this issue in our international negotiations because, without improvements in the rule of law, China’s commitments to address greenhouse gas emissions may prove to be of limited value.

V. CONCLUSION

Ten years after the Kyoto Protocol negotiations, new opportunities for a productive dialogue with China on climate change arise from the central government’s recognition of the desperate need to reign in the pollution that endangers the lives of its citizens, saps its economic vitality, and creates political strife. As a result, China may be more open to international calls for improving the nation’s energy efficiency, shifting to renewable

199. Halverson, supra note 195, at 328 n.62.
energy sources, and strengthening the capacity of the legal system to enforce environmental requirements since those measures will benefit both its citizens and the international community.

In negotiations, however, the United States and other developed nations must keep in mind the difficulties confronting China today. No country in the history of the world has faced tasks so dire on such an enormous scale—to substantially grow its economy in order to give food, clothing, shelter and basic health care and education to hundreds of millions of people, and at the same time protecting the environment of the nation and the Earth itself, all while trying to build a modern legal regime. As one author writes, China “is still a big, poor, developing nation trying to solve the emergency of the moment” and a “fragile superpower.” Thus, China’s challenge is to find the way to truly sustainable development, and it is the world’s challenge, but also opportunity, to help the Chinese government in this most important effort in order to guarantee the success we all so vitally need.