

Climate Change in the Asia-Pacific Region: Opportunity and Crisis

By Matthew Taylor

Glacier National Park in Montana, site of the Fifth Mansfield Pacific Retreat, which will focus on climate change in the Asia-Pacific Region, is often referred to as the “Crown Jewel of North America.” Its sweeping panoramas, deep glacial valleys, and jagged mountains amaze anyone fortunate to visit the area. In the park it is easy to feel that you have entered a world far removed from the concerns of an “interconnected planet.” Yet few of the visitors who walk onto the Park’s snowfields would guess that deep within the snow lie traces of pollutants blown in and deposited from across the globe. In fact, researchers in the Rocky Mountains and the Canadian Rockies have found pollutants carried from China’s Gobi Desert and the industrial complexes of Japan and Korea, just as transboundary air pollution from the United States travels similar distances and impacts equally fragile areas in other countries and continents.

Additional scientific investigation of the Park’s glaciers and snowfields reveals a number of the Park’s glaciers and permanent snowfields have disappeared in the last 100 years. In 1850, for example, the park was estimated to have had 150 glaciers. Now, 50 remain and if predicted warming trends hold true, these will disappear by 2030.¹ Many believe that climate change, including global warming caused by anthropogenic (human-caused) activity, may be the culprit. Though it may appear a pristine, spectacular world unto itself, Glacier Park is certainly no island.

One federal study claims precipitation levels in Montana have declined about 20 percent over the past century, and Montana’s farmers intuitively sense that the past decade was the warmest yet.² Boaters and fisherman who recreate on Montana’s renowned rivers, creeks and lakes bemoan drought-induced August closures from one end of the state to the other. Some climate change predictions suggest that by 2100, spring and summer temperatures could rise as much as 8° Fahrenheit, fall and winter temperatures could jump as much as 10° Fahrenheit, and precipitation could

increase roughly 10 percent with potentially higher rates in winter.³

As this article is being written, the relationship between man, climate and, inadvertently, our very way of life in Montana is being debated half a world away at the Sixth Session (second half) of the Conference of the Parties to the UN Framework Convention on Climate Change (also referred to as COP 6.5) meeting in Bonn.

Montana’s connections to China, Japan and Korea run deep thanks in no small part to Senator Mike Mansfield, former Ambassador to Japan. In fact, 61 percent of the wheat our farmers so anxiously plant and a substantial portion of our harvested forest products are annually bound for the Asia-Pacific region.⁴ Senator Mansfield once stated that the U.S.-Japan relationship is our country’s single most important bilateral relationship. That view has certainly held true in terms of economic trade and our strategic interests in the Asia-Pacific region. Today, it finds new importance in global climate change negotiations.

The Bush Administration’s rejection of the Kyoto Protocol as unrealistic, inequitable and harmful to the U.S. economy has dramatically, and for many, adversely affected U.S. diplomatic relations and remains one of the nation’s most contentious foreign policy issues. In order for the Protocol to be realized it must be implemented by 55 countries representing 55 percent of the developed nations’ emissions. As of May 2001, 34 countries had ratified its implementation. In Bonn, virtually all the participating countries, excluding the United States, agreed to its mechanisms; however it cannot enter into force unless ratified by countries such as Japan and Russia.

EMISSIONS TRADING: AN OPPORTUNITY FOR JAPAN?

Japan has made significant strides in reducing greenhouse gas emissions (GHG) and promoting energy efficiency. It is one of the few OECD countries to

increase public and private expenditures for energy research in recent years.⁵ Even though much of the Protocol's architecture was developed under initial U.S. pressure, Japan has a vested interest in its success given national sentiment and the nation's well-poised position for economic windfalls and emissions credits due to technology transfers made possible through the Protocol's Clean Development Mechanisms (CDM).

These mechanisms allow industrialized countries to gain emission credits for projects implemented within developing nations. The projects are designed to reduce GHG emissions, promote greater energy efficiency or deal with environmental problems such as smog. Through gaining these credits the country can then exceed its own emission caps or, conversely, sell these credits on the market to bidding countries already stretching their emission targets. CDMs and international emissions trading (ET), along with Joint Implementation (JI), wherein industrialized countries would gain credits through jointly implementing specific emissions-reducing projects, all combine to create one of the most promising aspects of the Protocol. They also are among the most difficult aspects to negotiate because such a broad trading system remains a political and economic experiment.

Domestic trading schemes, such as the successful U.S. trading program of sulfur dioxide credits aimed at reducing acid rain, operate on a much smaller scale, are typically more economically viable for industry when compared to regulation, and are bound by enforceable, domestic environmental laws—an aspect sorely lacking on the international stage.⁶ Voluntary emissions trading currently occurring in industry, such as within the British Petroleum Group, may provide alternative models from which to learn. However, such a program is still simple in comparison to the system mandated by the Kyoto Protocol, and it does not require overcoming Kyoto's major political and cultural hurdles. Compliance monitoring alone within the Protocol framework is a heavily contentious and speculative issue yet to be agreed upon by negotiators, and it is highly questioned by skeptics given the relative weakness of international treaties. This issue alone can be cited as one of the main breaking points behind the negotiations at The Hague in November 2000.

Despite these and many other major question marks in the Protocol, emissions trading presents opportunity for nations such as Japan who, per capita, are very

energy efficient when compared to the United States. The fact that the Protocol bears the name of Japan's cultural epicenter is a point not lost to the Japanese public—a polity, consumer appearances notwithstanding, which likes to see itself as conservation-minded. Leading political voices in Japan admonish the U.S. action, yet Japan will have serious difficulty meeting its own projected emissions caps. Further expanding Japan's nuclear energy production due to its "clean" emissions is a solution advocated by some in Japanese industry and government but this is a costly task with a long timeline and one complicated by recent industry accidents that have soured public opinion. If the world's two biggest economies fail to ratify the protocol, its fate is essentially sealed.⁷

The recent joint statement on June 30, 2001, by President Bush and Japan's Prime Minister Junichiro Koizumi discussed cooperation on a range of issues including new directions in climate change negotiations and research. Political niceties aside, little in the statement suggested an impasse between the two countries on this issue.⁸ This strategic partnership will likely remain firm and create a new moment of crisis and opportunity for the climate debate.

BEHIND U.S.-CHINA TENSIONS OVER EMISSIONS

Relations with China, already tense on a number of issues, appear further strained by the Bush administration's continual reference to the fact that developing countries, such as China and India, both prominent emitters of GHGs and with burgeoning economies likely to compound emissions, were explicitly omitted from binding targets in the Protocol. The official U.S. position cites this omission as one of the plan's most "fatal flaws" and one of the main reasons for the rejection of the Protocol by the Bush Administration as well as the U.S. Senate in its unanimous June 1997, Byrd-Hagel Resolution vote against the Protocol. This is a troubling matter to other countries besides the United States and is a repeat of diplomatic protests at the 1997 convention.

Complicating matters is the fact that GHG emissions from China, as outlined elsewhere in this publication, have actually *decreased* 17 percent from 1997 to 1999, according to the U.S. Department of Energy. At the same time GDP in China grew by 36 percent. In the decade from 1990-2000, emissions in China grew 8.4 percent, just over one-third lower than in the United

States.⁹ If present trends, investment and structural reforms continue within China, it is doubtful the country will overtake the United States in emissions any time soon, if at all, as once feared.

Strong critics of the Bush administration's stance on the Kyoto Protocol often cite these facts but such figures, though good for headlines, often obscure the whole story. China's actions to reduce emissions were "voluntary" in the sense they were not mandated by any international treaty. However, they were motivated by factors beyond the mere concern for global warming—for example, the need to deal with urban air pollution resulting from the country's heavy reliance on coal energy. According to a recent Woodrow Wilson Center report, economic downturns since 1998 resulted in a slowdown of electricity generation. The resulting industrial restructuring through consolidation or closure of smaller facilities has resulted in lower energy consumption and this, the report suggests, has led to lower emissions. Importantly, the study states that up to 40 percent of the total decline in energy use since 1996 could be accounted by the fact that cleaner burning coal is increasingly bought due to its higher heat content. The result has been "a decline in apparent coal consumption even as the economy grew."¹⁰ Whether these trends will continue is a very relevant question.

THE OUTLOOK FOR KOREA

Relations between the United States and South Korea on climate change have been somewhat less pronounced due in large part to Korea falling outside the group of the world's top 10 countries in terms of GHG emissions. At the same time, three decades of rapid economic expansion and parallel emissions growth have pushed South Korea toward the limits of developing nation status, a point commonly raised in the objections to Korea's exemption from Kyoto's binding targets. Energy use per capita ranks tenth in the world and is four times that of China. Previously, the nation's large subsidization of nuclear power has made nuclear the largest source of Korea's electricity. This has helped to keep GHG emissions low. As energy use continues to skyrocket and as subsidies decrease, heavier reliance on coal or natural gas may push emissions substantially higher.¹¹ As a result, CDMs and JI may prove attractive to Korea in its relations with Japan, the United States and China.

PERSPECTIVES FROM THE UNITED STATES.

Despite its controversy, the Bush administration's decision to jettison the Protocol's current framework of strict emissions targets and deadlines has led to unprecedented media attention, generated greater scrutiny of the Protocol's weaknesses, and, one could speculate, even created a greater sense of urgency and collaboration among negotiating parties at COP 6.5. That global warming made its way to the cover pages of leading national magazines such as *Time* and is presented almost daily in many of the nation's most respected newspapers is a turn that bodes well whether the treaty comes into force or not. Similarly, the current U.S. administration's shift toward voluntary compliance, flexibility, greater emphasis on technological and incentive-based solutions and market mechanisms presents a light of hope for many, particularly in industry.

Climate change's re-emergence into the limelight has put Congress on the climate map once again as well. Lobbying activity is heating up faster than the atmosphere. Recent congressional testimonies on the need for the United States to take a leading role in climate change technology as well as the Byrd-Stevens Climate Change Strategy and Technology Innovation Act of 2001, presented in early June 2001, are notable examples. Though the Byrd-Stevens bill raised the problem of developing nations again and is decidedly industry-focused, it also pushes for greater climate research and leadership from the United States. Prominent figures in the climate change arena, such as Eileen Claussen, President of the Pew Center on Global Climate Change, are willing to support the bill because, among other key issues, it promotes productive collaboration between government and industry on "green" technology and calls for much needed clarity on the economic costs, projected and real, of climate change.¹²

Trends toward additional research are promising and signal a greater, proactive, role of industry. However, some critics see the request for more research as a "wait and see" agenda. The Intergovernmental Panel on Climate Change (IPCC) report presented this spring, though laden with questions, clearly outlines the correlation between anthropogenic activity and climate change and spells out many gloomy scenarios mentioned elsewhere in this publication and the media. One thing is for certain. The longer we, as a world community, delay coordinated, measurable, binding

actions to mitigate climate change caused by our own activities, the costlier it will be to suppress, adapt to and reverse the ecological and economic havoc that could occur as suggested in the predictions of the IPCC. A low-lying Pacific island threatened by raising sea levels and a dry ranch in Montana where cattle must be shipped out-of-state for grazing may come to be seen as having more in common than ever realized. The inhabitants of the Asia-Pacific region may, more than ever, come to see themselves, in the words of Mike Mansfield, "as neighbors around a lake," breathing the same air and watching the same snow fall on their valleys and peaks. ❄️

Matthew Taylor is currently the Coordinator of the Mansfield Pacific Retreats, Coordinator of the annual Mansfield Conference and a Senior Research Associate at the Maureen and Mike Mansfield Center. He has a B.S. degree in Business Administration, a B.A. degree in Liberal Studies with a focus on Environmental Science, and an M.A. degree in cross-cultural communication with an emphasis on organizational communication in Japan and the United States, all from the University of Montana.

¹ USGS Biological Resources Division, Glacier Field Station. Carl H. Key, 1997.

² Climate Change and Montana, U.S. Environmental Protection Agency Report, September 1997. See <http://www.epa.gov/globalwarming/impacts/stateimp/montana>.

³ T.C. Johns, R.E. Carnell, J.F. Crossley, J.M. Gregory, J.F.B. Mitchell, C.A. Senior, S.F.B. Tett, and R.A. Wood. "The second Hadley Centre coupled ocean-atmosphere GCM: Model description, spinup and validation." *Climate Dynamics*, as cited by the US Environmental Protection Agency's Climate Change and Montana report, September 1997. See <http://www.epa.gov/globalwarming/impacts/stateimp/montana>.

⁴ Montana Agricultural Statistics Service, November 4, 2000. See <http://www.nass.usda.gov/mt/>.

⁵ John F. Smith Jr., "Technology for the New Millennium," *USA Today* (Magazine), January 2001, v129, i2668, p 26.

⁶ David Victor, *The Collapse of the Kyoto Protocol* (Princeton University Press, 2001) pp. 46-7.

⁷ Edmund L. Andrews, "Frustrated Europeans Set to Battle U.S. on Climate," *New York Times*, Science Desk, July 16, 2001.

⁸ Andres C. Revkin, "Burden Seems to Be on Japan to Salvage Climate Treaty," *New York Times* Foreign Desk, July 2, 2001.

⁹ Erik Eckholm, "China Said to Sharply Reduce Emissions of Carbon Dioxide," *New York Times*, A1, June 15, 2001.

¹⁰ Jonathan Sinton & David Fridley, "Hot Air and Cold Water: The Unexpected Fall in China's Energy Use," *China Environment Series*, issue 4, 2001, Woodrow Wilson International Center for Scholars.

¹¹ "Developing Countries and Global Climate Change: Electric Power Options in Korea." A report by the Pew Center on Global Climate Change, Battelle Advanced International Studies Unity, Korea Energy Economics Institute, October 1999.

¹² Statement by Eileen Claussen, President, Pew Center on Global Climate Change, given before the Governmental Affairs Committee, U.S. Senate, July 18, 2001.