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Leading Towards a Level Playing Field, Repaying Ecological Debt, or Making Environmental Space: Three Stories About International Environmental Cooperation

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LEADING TOWARDS A LEVEL PLAYING FIELD, REPAYING ECOLOGICAL DEBT, OR MAKING ENVIRONMENTAL SPACE: THREE STORIES ABOUT INTERNATIONAL ENVIRONMENTAL COOPERATION[©]

BY KARIN MICKELSON*

This article considers a number of different ways of conceptualizing the relationship between South and North in the environmental context, focusing on international responses to climate change and, in particular, the Kyoto Protocol to the United Nations Framework Convention on Climate Change. It explores three stories about international environmental cooperation. One derives from the concept of “ecological debt,” the second comes from the concept of “environmental space,” and the third, which might be said to underlie the U.S. approach to the Kyoto Protocol at the present time, is labelled “leading towards a level playing field.” The article provides an overview of all three stories, and attempts to offer some insight into the very different visions of the international community that they encapsulate.

Cet article réfléchit à un certain nombre de manières de conceptualiser la relation entre le Nord et le Sud dans le contexte environnemental, s'intéresse aux réactions internationales au changement climatique et, en particulier, au Protocole de Kyoto à la Convention-cadre des Nations Unies sur les changements climatiques. L'article approfondit trois histoires relatives à la coopération environnementale internationale. L'une découle du concept de « dette écologique », la deuxième provient du concept « d'espace environnemental » et la troisième, dont on peut dire qu'elle sous-tend la démarche américaine actuelle envers le Protocole de Kyoto, est jugée « mener vers un terrain équilibré ». L'article donne un aperçu des trois histoires et tente d'éclaircir quelque peu des perceptions fondamentalement différentes de la communauté internationale qu'elles résument.

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I.	INTRODUCTION	

Much of the literature on international law post-September 11 (“9/11”) has focused on the areas that have been impacted dramatically, such as security, the use of force, terrorism, and human rights. Little attention has been paid to areas that have been impacted in less obvious ways. International environmental law is one such area. One need not be a partisan of the school of thought that espouses “environmental security” as a new basis for international cooperation to recognize that there are strong currents swirling around the field of international environmental law, the implications of which have barely begun to be explored. In particular, these recent developments could have a significant effect on the relationship between South and North with regard to environmental matters. That relationship has been the subject of debate for more than thirty years. But as the need for international cooperation on environmental issues of global concern has become more obvious, the need for South-North understanding has come to be seen as increasingly critical.

The editors of this special issue posed a challenge, asking us to consider whether it is possible to “envision and articulate alternative ... more globally valid, stories about international law, global institutions and international practices.” I have decided to take up this challenge quite literally, by focussing on the idea of stories. The purpose of this article, then, is to consider some of the very different ways in which we might tell the story of international environmental law and the relationship between South and North at the present historical juncture. To that end, three stories will be presented. The first story appears to underlie the approach taken by the United States at the present time. I call it “leading towards a level playing field” because it combines an insistence on all nations shouldering a fair share of the burdens associated with global environmental protection, with an acceptance of a narrow sense of leadership that regards developed countries as taking a lead role because

of their technological capacity and expertise. This approach predates 9/11, but there are clear indications that it is becoming more entrenched, and increasingly linked with notions of national self-interest that view the interests of the international community as secondary at best, irrelevant at worst. The second story comes from the concept of “ecological debt,” first proposed in the early 1990s by Latin American activists who argued that the North is indebted to the South for the enormous costs of environmental degradation that has resulted from its process of industrial and economic development. The final story comes from the concept of “environmental space,” which posits that given the limitations of both resources for extraction and assimilative capacity for the byproducts of industrialization, the North needs to “make room” for the nations of the South to pursue economic and social development. This article provides an overview of all three stories, and attempts to offer some insight into the very different visions of the international community that they encapsulate.

The lens through which this article examines these three stories is that of the international responses to the problem of climate change and, in particular, the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC). The Kyoto Protocol represents the culmination of the most ambitious, sophisticated and complex experiment in international environmental law making that has ever been attempted. It also represents an attempt on the part of the international community to respond to perhaps the most daunting environmental challenge it has ever faced. Unlike other issues tackled in the past, the greenhouse gas (GHG) emissions linked to climate change come from all parts of the world and result from a wide range of activities, from agriculture to industry. In particular, carbon dioxide (CO₂) emissions have practically been the measure of economic activity since the time of the Industrial Revolution. It is not much of an exaggeration to say that the economy of the modern industrialized state has been a carbon economy.

The Kyoto Protocol also represents the expectation and hope of the international community that the developed countries will take a leadership role in meeting the challenges of climate change. While Canada, the nations of the European Union, Japan, the Russian Federation, and others have accepted that role, the United States has made it clear that it will not, citing the lack of obligations on developing countries as a major concern. It is not alone; Australia has also decided not to ratify the protocol. But the United States stand is particularly controversial—not only because the

United States remains the single largest emitter of CO₂ in the world,¹ but also because to many observers it reflects the disdain for multilateralism that appears to characterize so many aspects of U.S. foreign policy at the present time.

The structure of the article is as follows. Part II traces the U.S. approach. It begins by providing some background to the U.S. stance on global environmental matters, before turning to an examination of the U.S. stance on the Kyoto Protocol from its origins to the present time. It then analyzes the story of “leading towards a level playing field.” Part III deals with ecological debt, beginning with an examination of the origins and evolution of the concept, proceeding to describe its content, and discussing its application to the problem of climate change before analyzing the story of “repaying ecological debt.” Part IV, dealing with environmental space, follows a structure similar to that of Part III. Part V will compare these different stories, and consider how they overlap and diverge. It will also explore the implications of each as a foundation for international environmental law. The article concludes by asking how we might conceptualize South-North cooperation on environmental matters in a way that does not perpetuate an international system that is fundamentally unequal and inequitable.

II. LEADING TOWARDS A LEVEL PLAYING FIELD

A. *The U.S. Stance on Global Environmental Matters*

The U.S. approach towards environmental challenges can be characterized as somewhat schizoid, with its stance differing dramatically between the domestic and the international sphere. Domestically, the United States was one of the first nations to develop a rigorous set of environmental laws in the late 1960s and early 1970s. In the midst of the 1992 United Nations Conference on Environment and Development (UNCED), the Office of the President issued a publication which asserted that the United States had “long been the world’s leader in environmental preservation, with the world’s most comprehensive and advanced programs for controlling pollution, protecting valuable public lands, and enforcing environmental laws.”² While one might take issue with the hyperbole, there

¹ For recent (and understandable) statistics on carbon dioxide emissions, see World Resources Institute, “EarthTrends Data Tables: Climate and Atmosphere,” online: EarthTrends: The Environmental Information Portal <http://earthtrends.wri.org/pdf_library/data_tables/cli1_2003.pdf>.

² Adam Rogers, *The Earth Summit: A Planetary Reckoning* (Los Angeles: Global View Press, 1993) at 75.

is no doubt that the United States has a well-developed and comprehensive body of environmental legislation.

Internationally, on the other hand, the United States has come to be widely regarded as a major obstacle to the evolution of effective environmental regimes. This was not always the case, as can be seen by U.S. involvement in international action in relation to ozone depletion. The United States took a clear leadership role in the development of a rigorous set of obligations in the Montreal Protocol on Substances that Deplete the Ozone Layer; in fact, in marked contrast to what has occurred with respect to climate change, it was certain European nations who had to be coaxed and pushed into undertaking significant commitments to phase out the production of ozone-depleting substances. What is even more noteworthy is that during this time, the United States seemed to be quite comfortable with the notion of differentiated obligations for developing countries. It expressed few qualms about the inclusion of a grace period whereby developing countries would be allowed a longer time frame within which to meet their phase-out commitments. The U.S. chief negotiator, Richard Benedick, writing later about the negotiations, stated, “[t]he designers of the protocol had assumed that developing countries’ consumption of [ozone depleting substances] would, starting from an extremely low base, need to expand to meet legitimate needs of their growing economies.”³

Nevertheless, even in the ozone context, there were indications that the United States had no intention of allowing its leadership role to be interpreted expansively. It resisted the establishment of the Multilateral Fund, which was set up in order to facilitate developing country participation in the Protocol through the provision of financial resources to cover the incremental costs of phasing out ozone-depleting substances. When it finally became clear that the establishment of the Fund was a precondition to the ratification of the Protocol by such key players as India and China, the United States capitulated, although its representatives emphasized that this was “without prejudice to any future arrangements that may be developed with respect to other environmental issues.”⁴

It was this stance vis-à-vis the Fund, rather than the early acceptance of differentiated phase-out commitments, that proved to be typical of the U.S. approach to other environmental matters. For example, in the negotiating process leading up to the UNCED treaties (the Convention on Biological Diversity (CBD) and UNFCCC, for example), the

³ Richard Elliot Benedick, *Ozone Diplomacy: New Directions in Safeguarding the Planet*, rev. ed. (Cambridge, Mass: Harvard University Press, 1998) at 241.

⁴ Ian H. Rowlands, *The Politics of Global Atmospheric Change* (Manchester: Manchester University Press, 1995) at 174.

United States was widely perceived as playing an obstructionist role. With the former, the United States expressed grave concerns regarding the potential erosion of intellectual property rights represented by provisions requiring that the benefits arising from the commercial exploitation of biological diversity be shared equitably between the commercial enterprises involved, on the one hand, and host states and local communities on the other.⁵ In the climate change context, the original hope had been that the UNFCCC would include binding emissions reduction commitments for developed country parties. The United States successfully resisted this initiative, threatening to refuse to ratify. U.S. involvement was seen as critical, and therefore the UNFCCC simply requires states to develop national policies “with the aim of returning individually or jointly” to 1990 levels of greenhouse gas emissions.⁶ The United States was also unwilling to accept the imposition of common response measures such as carbon taxes or energy efficiency standards (“policies and measures”); thus, the UNFCCC leaves the choice of policies to individual parties. The approach taken by the United States to both these treaties proved to be a major source of controversy during the process leading up to UNCED and at the Conference itself. The United States attempted to prove its environmental credentials by proposing a treaty on forests, but this initiative was not successful.⁷ President George Bush, in particular, was widely excoriated for his perceived intransigence on global environmental matters. United States Representative George Miller, a member of the Congressional delegation to the Conference, noted that he was “struck by the palpable resentment towards our country both from the developed nations and the developing world.”⁸

⁵ While this was the major justification for the United States’ failure to sign the CBD, concerns were also expressed regarding the provisions of Article 20, requiring developed country parties to provide funding before developing countries would be required to fulfil their obligations under the Convention. The United States signed the Convention in June 1993, but has yet to ratify (the only one of the Convention’s signatories to have failed to do so). For commentary from that time, see “Not-So-Bad Boy of Biodiversity,” Editorial, *New York Times* (5 June 1992) A28; “Bush is Right Not to Sign Environmental Treaty”, Editorial, *USA Today* (9 June 1992). For a recent survey of U.S. attitudes towards the Convention, see Robert F. Blomquist, “Ratification Resisted: Understanding America’s Response to the Convention on Biological Diversity, 1989-2002” (2002) 32 *Golden Gate U.L. Rev.* 493.

⁶ Some have argued that the threat was more specific, i.e. President Bush would not attend the Conference if the Convention did not take the form the United States wanted. See e.g. Rose Gutfeld, “Earth Summit: How Bush Achieved Global Warming Pact With Modest Goals” *Wall Street Journal* (27 May 1992) A1.

⁷ Instead, the UNCED ended up adopting a “Non-Legally Binding Statement of Principles on the Conservation, Management and of All Types of Forests”.

⁸ *Supra* note 2 at 77.

B. *The U.S. Stance on the Kyoto Protocol*

It is with regard to the Kyoto Protocol to the UNFCCC, however, that the U.S. stance on global environmental matters has been most visible, and most controversial, in recent years. The Kyoto Protocol was essentially a response to the failure to achieve binding emissions reduction commitments in the UNFCCC, and was seen as the logical extension of the stabilization target. Work on a protocol began almost immediately after the Convention's entry into force.⁹ The first Conference of the Parties to the UNFCCC (COP-1), held in Berlin in April 1995, asserting that the commitments for developed country parties were inadequate, decided to undertake a new set of negotiations on a "protocol or other legal instrument." The decision, known as the "Berlin Mandate,"¹⁰ set out the parameters for the negotiations, and emphasized that the new instrument would "[n]ot introduce any new commitments" for developing countries, although it would "reaffirm existing commitments ... and continue to advance the implementation of these commitments in order to achieve sustainable development."¹¹ The United States accepted the Mandate despite considerable domestic opposition.

The Berlin Mandate established an ad hoc group to coordinate the negotiation process. While the Berlin Mandate clearly excluded new commitments for developing countries, the United States nevertheless brought this issue up on an ongoing basis.¹² It also began to take a different approach to the question of how to approach developed country commitments. At COP-2, the United States argued that the most cost-effective way of dealing with climate change was with targets; in particular, it began to champion the inclusion of emissions trading, which was greeted

⁹ In fact, even prior to the first Conference of the Parties, there was discussion of the need for a protocol. At the eleventh session of the Intergovernmental Negotiating Committee for an FCCC, for example, the Alliance of Small Island States (AOSIS) put forward a draft protocol that required developed countries to reduce their emissions of the three main GHGs by 20 per cent by 2005; Germany also proposed elements for a protocol. See Sebastian Oberthür & Hermann E. Ott, *The Kyoto Protocol: International Climate Policy for the 21st Century* (Berlin: Springer, 1999) at 44-45 [Oberthür & Ott]. For a summary of the key points of the AOSIS protocol, see Republic of Maldives, Ministry of Home Affairs and Environment, *The Key Features of the Protocol Submitted by AOSIS*, online: The Ministry of Home Affairs and Environment <http://www.environment.gov.mv/AOSIS_protocol.htm>.

¹⁰ *Report of the Conference of the Parties [to the United Nations Framework Convention on Climate Change] on its First Session held at Berlin, 28 March to 7 April 1995*, FCCC Dec. 1/CP.1, UNFCCC, FCCC/CP/1995/7/Add.1 (1995) at 4, online: United Nations Framework Convention on Climate Change <<http://unfccc.int/resource/docs/cop1/07a01.pdf#page=4>> [Berlin Mandate].

¹¹ Berlin Mandate, *ibid.* at 5.

¹² Oberthür & Ott, *supra* note 9 at 49-50.

with little enthusiasm by the Europeans and the Group of Seventy-seven (G-77).¹³

On the domestic front, the U.S. Senate made its own views known. In June 1997, Senator Robert Byrd, a Democrat from West Virginia, and Senator Chuck Hagel, a Republican from Nebraska, sponsored a resolution “[e]xpressing the sense of the Senate regarding the conditions for the United States becoming a signatory to any international agreement on GHG emissions under the United Nations Framework Convention on Climate Change.”¹⁴ This “Byrd-Hagel Resolution,” noting the rapid increase of GHG emissions by Developing Country Parties, asserted that “the exemption for Developing Country Parties is inconsistent with the need for global action on climate change and is environmentally flawed,” and expressed the strong belief of the Senate “that the proposals under negotiation, because of the disparity of treatment between Annex I Parties and Developing Countries and the level of required emission reductions, could result in serious harm to the United States economy.” It went on to convey the sense of the Senate that the United States should not be a signatory to any agreement that would:

(A) mandate new commitments to limit or reduce greenhouse gas emissions for the [developed country parties], unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or

(B) would result in serious harm to the economy of the United States

The Senate passed the resolution by a vote of 95 to 0. In a speech to Congress a few months later, Senator Hagel stated,

Many of my colleagues and I fear that the current treaty negotiations will shackle the United States economy, meaning fewer jobs, lower economic growth and a lower standard of living for our children and our future generations. This treaty would do so without any meaningful reduction in greenhouse gases because it leaves out the very nations who will be the world’s largest emitters of greenhouse gases, the more than 130 developing nations including China, India, Mexico, South Korea and many others.¹⁵

Thus, the U.S. delegation went into COP-3, held in Kyoto in 1997, knowing that the prospects for Senate ratification of the Protocol within the

¹³ Joyeeta Gupta, *Our Simmering Planet: What to do about Global Warming?* (London: Zed Books, 2001) at 41.

¹⁴ U.S., *Byrd-Hagel Resolution*, 105th Cong. (1997), online: The National Center for Public Policy Research <<http://www.nationalcenter.org/KyotoSenate.html>>.

¹⁵ *Supra* note 13 at 42-43.

parameters of the Berlin Mandate were slim. There was considerable uncertainty as to whether the United States would even sign the Kyoto Protocol. Vice President Gore, well-known for his strong environmental convictions, led the U.S. delegation and expressed the commitment of President Clinton to sign the Protocol. Nevertheless, in a statement made when the United States did sign the Protocol in November 1998, Gore asserted,

Signing the Protocol, while an important step forward, imposes no obligations on the United States. The Protocol becomes binding only with the advice and consent of the U.S. Senate. As we have said before, we will not submit the Protocol for ratification without the meaningful participation of key developing countries in efforts to address climate change.¹⁶

Gore went on to include support for the Protocol as part of his platform during the 2000 presidential election campaign, expressing pride in the accomplishment that the Protocol represented, and characterizing it as “an indispensable first step” in the battle to address climate change.¹⁷

George W. Bush, on the other hand, harshly criticized the Protocol during the 2000 campaign,¹⁸ and wasted little time in communicating those views to the international community after assuming office. In March 2001, when asked whether the U.S. would pull out from the Kyoto Protocol, Press Secretary Ari Fleischer expressed the President’s opposition to the Protocol, while emphasizing that “there’s nothing to withdraw from because there is no treaty in effect.”¹⁹ In a letter sent earlier that month to Senators Hagel, Helms, Craig, and Roberts, President Bush stated, “I oppose the Kyoto Protocol because it exempts 80 percent of the world, including major population centers such as China and India, from compliance, and would

¹⁶ Office of the Vice President, “Statement by Vice President Gore on the United States’ Signing of the Kyoto Protocol,” *The White House* (12 November 1998), online: The White House <<http://clinton4.nara.gov/CEQ/19981112-7936.html>>.

¹⁷ Albert Gore, *Earth in the Balance: Ecology and the Human Spirit*, rev. ed. (Boston: Houghton Mifflin, 2000) at xvii. Gore went on to state at xvii, “Our next step is to seek meaningful participation from developing nations and submit the Kyoto agreement to the Senate for ratification.”

¹⁸ For example, during a Presidential Debate held at Wake Forest University on 11 October 2000, Bush stated “I’m not going to let the United States carry the burden for cleaning up the world’s air, like the Kyoto Treaty would have done.” See “Election 2000 Presidential Debate II with Republican Candidate Governor George W. Bush and Democratic Candidate Vice President Al Gore” *Federal News Service* (11 October 2000), online: C-SPAN <http://www.c-span.org/campaign2000/transcript/debate_101100.asp>.

¹⁹ Office of the Press Secretary, “Press Briefing by Ari Fleischer,” *The White House* (28 March 2001), online: The White House <<http://www.whitehouse.gov/news/briefings/20010328.html>>.

cause serious harm to the U.S. economy.”²⁰ Recalling the Byrd-Hagel Resolution, Bush noted that the 95-0 vote reflected “a clear consensus that the Kyoto Protocol is an unfair and ineffective means of addressing global climate change concerns.”²¹ Insisting that his administration “takes the issue of global climate change very seriously,” Bush stated, “we will continue to fully examine global climate change issues—including the science, technologies, market-based systems, and innovative options for addressing concentrations of GHGs in the atmosphere.”²²

The Bush position on the Kyoto Protocol raised a firestorm of criticism. On the diplomatic front, the Europeans and Japanese expressed grave concerns about the U.S. Administration’s position.²³ Non-governmental organizations (NGOs) were more blunt. The New Delhi-based Centre for Science and Environment proclaimed,

At a time when a large part of India’s population does not even have access to electricity, Bush would like this country to stem its “survival emissions”, so that industrialised countries like the US can continue to have high “luxury emissions”. This amounts to demanding a freeze on global inequity, where rich countries stay rich, and poor countries stay poor, since carbon dioxide emissions are closely linked to GDP growth.²⁴

United States NGOs were no less scathing in condemning their government’s stance. The Natural Resources Defence Council asserted:

Singling out China and India, as the president has done, demonstrates the inequity in his claim of unfairness. Nearly half the population of India lives on less than \$1 per day; the death rate of Indian children under 5 years is 13 times higher than in the United States; the average person in India uses less electricity in a year than the average American uses every two weeks. Given that developed countries have put 75 percent of accumulated greenhouse pollution in the atmosphere and the disparity in living conditions between the United States and such countries as China and India, it is morally bankrupt to argue that the United States should refuse to take additional action until the world’s poor countries take the same action.²⁵

²⁰ Office of the Press Secretary, “Text of a Letter from the President to Senators Hagel, Helms, Craig, and Roberts” *The White House* (13 March 2001), online: The White House <<http://www.whitehouse.gov/news/releases/2001/03/20010314.html>>.

²¹ *Ibid.*

²² *Ibid.*

²³ “Dismay as U.S. drops climate pact” (29 March 2001), *CNN* online: CNN.com <<http://edition.cnn.com/2001/WORLD/europe/italy/03/29/environment.kyoto/index.html>>.

²⁴ Centre for Science and Environment, “George Bush: ‘I oppose the Kyoto Protocol’” (16 March 2001), online: Centre for Science and Environment <http://www.cseindia.org/html/au/au4_20010317.htm>.

²⁵ National Resources Defense Council, “Bush Administration Errs on Kyoto Global Warming Agreement,” online: National Resources Defense Council <<http://www.nrdc.org/globalWarming/akyotoqa.asp>>.

There are some signs of change. One commentator characterizes U.S. environmental discourse as “undergoing seismic shifts of opinion” with regard to climate change, with opinion polls indicating that 70 to 80 per cent of Americans take the problem seriously and “want their country to take the lead in addressing it.”²⁶ Nevertheless, there still appears to be considerable reticence towards the Kyoto Protocol, which is not limited to the Bush Administration or the Republican Party. During the 2004 presidential campaign, for example, John Kerry was critical of President Bush’s stance on climate change, but stopped short of embracing the Protocol. Instead, he pledged to “reengage in the development of international climate change strategy that will address the worldwide problem of global warming and identify workable responses that provide opportunities for American technology and know-how.”²⁷ In fact, a document produced by the Kerry-Edwards campaign touching on the Protocol was quite consistent with what has been said about climate change by the Bush Administration, despite attempting to differentiate itself:

Using American ingenuity to level the playing field

John Kerry and John Edwards believe that the Kyoto Protocol is not the answer. The near-term emission reductions it would require of the United States are infeasible, while the long-term obligations imposed on all nations are too little to solve the problem. Unlike the current Administration, John Kerry and John Edwards will offer an alternative to the Kyoto process that leads the world toward a more equitable and effective answer ...²⁸

While asserting that under a Kerry-Edwards Administration the United States would “equitably match the initial efforts of [its] industrial-country trading partners and competitors,” the document emphasized that the time frame for U.S. emissions reductions has to be “reasonable and realistic,” and that “American workers and industries should not be forced to shoulder the costs of these reductions.”²⁹ The emphasis throughout was on the deployment of innovative (American) technology in order to meet emissions reduction targets, and on cost-effectiveness of measures adopted. Finally, the statement emphasized that the alternative to the Kyoto Protocol must involve a commitment on the part of “key developing countries” to “reduce the growth of their greenhouse gas emissions.”³⁰

²⁶ Geoffrey Lean, “Kyoto Prospects 2: America” 17: 807 *New Statesman* (17 May 2004) 31 at 31.

²⁷ See “Protecting our Global Environment,” online: Kerry-Edwards <http://www.johnkerry.com/issues/national_security/global_environment.html>.

²⁸ “The Kerry-Edwards Plan for Clean Coal,” online: Kerry-Edwards <http://www.johnkerry.com/pdf/pr_2004_0819g.pdf> at 2 [Kerry-Edwards].

²⁹ *Ibid.* at 2-3.

³⁰ *Ibid.* at 3.

C. *The Story of Leading Towards a Level Playing Field*

While there seems to be no doubt that concerns about harm to the economy have largely driven the U.S. stance on the Kyoto Protocol, the so-called exemption of the developing world from emissions reduction commitments has clearly been a critical factor. This is particularly apparent in how the U.S. stance is justified. Harm to the economy, after all, while a fundamental concern of the electorate, does not have the same emotional resonance as an appeal to fundamental notions of fairness. The U.S. administration appears to be counting on its insistence on fairness to legitimate and soften its stance with regard to economic concerns. From a strategic point of view, it is a brilliant tactic. Rather than simply telling the American people that it is their right to continue living one of the most energy-intensive lifestyles on earth, the U.S. administration tells them that the rest of the international community expects them to carry more than their fair share. After all, who wants to shoulder an “unfair” part of any burden?

While it is all too easy to satirize this position, it is important to resist the temptation to overstate it. Paul Harris argues that it is simply not accurate (nor is it particularly fair) to characterize the U.S. position on the Kyoto Protocol as reflecting a lack of understanding of the differences between developed and developing states.³¹ Far from reflecting a repudiation of the principle of “common but differentiated responsibilities,” Harris asserts, the Byrd-Hagel Resolution represents “an alternative interpretation of it, albeit a less robust one than the developing countries wanted.”³² He points out that the debate in the U.S. Senate reflected an awareness and acceptance of the notion of differentiated obligations. The participants did not envisage emissions reduction commitments for developing countries; instead, they sought a commitment to limit emissions *increases*. Rather than pursuing the traditional economic model of carbon-intensive economic growth, the developing countries should undertake to pursue an alternative development path, which would impose less of a burden on the environment. Furthermore, the senators did not expect an acceptance of obligations by all developing countries; there appeared to be consensus that the burden should fall on those countries which had both significant CO₂ emissions, on the one hand, and the resources to pursue alternatives, on the other. The least developed

³¹ Paul G. Harris, “Common but Differentiated Responsibility: The Kyoto Protocol and United States Policy” (1999) 7 N.Y.U. Env'tl. L.J. 27.

³² *Ibid.* at 42.

countries were seen as falling outside the scope of the Resolution.³³

Even if one takes into account Harris's warning regarding the debates surrounding Byrd-Hagel, some troubling concerns remain. It is striking that in a debate full of references to the need to pursue an alternative development path, very little is said about the need for the United States to wean itself from its own carbon habit. The Kerry-Edwards statement on the Kyoto Protocol reproduced above is much the same; in fact, it appeared in "The Kerry-Edwards Plan for Clean Coal," a document that targeted at voters in West Virginia and other coal-producing states.³⁴ The Plan emphasized that coal is "vital to our nation's energy and economic security," and asserted that "the environmental issues sometimes thought to be impediments to the expanded use of coal can be solved with new clean coal technologies."³⁵

Similarly, while the responsibility of developing countries to start doing their part to address climate change is an important theme, and there is some acknowledgment that they may need assistance in order to do so, there is no discussion of how that assistance is to be provided. In particular, the responsibility of developed countries to provide assistance either through the provision of financial resources or through technology transfer is not acknowledged. Setting aside the least developed countries, there is no sense that the larger developing countries have anything other than a lack of political will standing in the way of doing something to limit greenhouse gas emission increases. The Kerry-Edwards Plan stated, "China, India, and the other key developing countries must also join the effort by agreeing to reduce the growth of their greenhouse gas emissions—a step that can be achieved by the installation of American-made energy technologies."³⁶ But nothing is said about how that installation is to take place; it is not implausible to assume that what is being contemplated is a straightforward market transaction.

So what is the story that all of this tells about international environmental law, and about the Kyoto Protocol? The ultimate goal appears to be an international system made up of nations much like the United States itself: economically developed, technologically advanced, competing on an open market. There is an acknowledgment that the developed countries need to show leadership, and that the United States,

³³ *Ibid.* at 38.

³⁴ West Virginia was regarded as a swing state in the 2004 U.S. election. According to one commentator, the fact that traditionally Democratic West Virginia went against Gore was regarded as a factor in his loss of the 2000 U.S. election.

³⁵ Kerry-Edwards, *supra* note 28 at 1.

³⁶ *Ibid.* at 3 [emphasis added].

in particular, has a key role to play. However, this leadership is conceptualized in very different terms from the leadership contemplated in the climate change regime, which recognizes the importance of having resources and technology, but also emphasizes a willingness to take responsibility for a problem that was primarily created by the developed countries. The Kerry-Edwards plan expressed confidence that “with technology leadership from U.S. industry and policy leadership from the U.S. government, America can once again guide the world to a more secure future.”³⁷ Perhaps the acknowledgment of leadership is enough; perhaps one ought not to expect an acknowledgment of responsibility. But as the next two stories show, there are ways of thinking about international environmental law that appear to offer a different foundation for international cooperation.

III. REPAYING ECOLOGICAL DEBT

A. *The Origins and Evolution of the Concept of Ecological Debt*

The concept of ecological debt is usually attributed to the work of Latin American authors from the early 1990s.³⁸ In 1990, the Instituto de Ecología Política, based in Santiago, Chile, published “Ecological Debt: A Sociopolitical Perspective.”³⁹ The focus of the paper was on ozone depletion, an obvious concern to Chile due to its geographical location. The authors argued that the costs associated with ozone depletion should be borne by those who had produced and benefited from ozone-depleting substances. The theme was taken up by a Colombian lawyer, José Borrero Navia, who published a study of the concept in 1994.⁴⁰

The idea of ecological debt was brought forward to the Earth Summit in 1992 by Latin American NGOs. A document entitled “External Debt and Ecological Debt,” signed by twenty-one NGO representatives from eight Latin American nations, “proposed that external debt be swapped for the region’s ecological and social losses derived from colonialism and past

³⁷ *Ibid.* at 2.

³⁸ Joan Martinez-Alier, the best-known academic proponent of this concept, is of this view; see e.g. Joan Martinez-Alier, *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation* (Cheltenham: Edward Elgar, 2002) at 213 [Martinez-Alier].

³⁹ María Luisa Robleto & Wilfredo Marcelo, *La Deuda Ecológica: Una Perspectiva Sociopolítica* (Santiago: Instituto de Ecología Política, 1990).

⁴⁰ Jose Maria Borrero Navia, *La deuda ecológica: Testimonio de una reflexión* (Cali, Colombia: FIMPA Y CELA, 1994).

exploitative foreign investment.”⁴¹ While this plea appears to have had little impact on the governmental representatives attending the conference,⁴² the NGO Forum was more receptive. One of the “Alternative Treaties” produced by the Forum was a Debt Treaty, the preamble of which recognizes “the existence of a planetary ecological debt of the North,” defining it as being “essentially constituted by economic and trade relations based on the indiscriminate exploitation of resources, and its ecological impacts ... including global environmental deterioration, most of which is the responsibility of the North.”⁴³ The Treaty goes on to pledge that the participants will “[w]ork for the recognition and compensation of the planetary ecological debt of the North with respect to the South.”⁴⁴

While NGO activism on ecological debt continued throughout the 1990s, the concept appears to have gained a wider audience in recent years through being embraced by organizations involved in campaigns for external debt forgiveness, based in both the North and the South.⁴⁵ Friends of the Earth (FOE) International began an ongoing campaign on ecological debt in 1999.⁴⁶ The first World Social Forum, held in Porto Alegre, Brazil in 2001, proclaimed:

The external debt of the countries of the South has been repaid several times over. Illegitimate, unjust and fraudulent, it functions as an instrument of domination, depriving people of their fundamental human rights with the sole aim of increasing international usury.

⁴¹ Kristin Dawkins, “US blocks plans for a cleaner earth,” online: Green Left Weekly <<http://www.greenleft.org.au/back/1991/39/39p4.htm>>.

⁴² With one exception: in his statement, Fidel Castro called for the repayment of ecological debt. According to Martinez-Alier, Castro was persuaded to do this by Latin American activists. *Supra* note 38 at 213.

⁴³ NGO Alternative Treaties from the Global Forum at Rio de Janeiro 1-15 June 1992, Debt Treaty, online: Alternative Treaties <<http://habitat.igc.org/treaties/at-13.htm>> at para. 2.

⁴⁴ *Ibid.*, para. 16. Not surprisingly, the references to external debt in the official Conference documents reflected a strikingly different tone. In Chapter 33 of *Agenda 21*, for example, debt relief is described in the following terms:

It is important to achieve durable solutions to the debt problems of low- and middle-income developing countries in order to provide them with the needed means for sustainable development. Measures to address the continuing debt problems of low- and middle-income countries should be kept under review. All creditors in the Paris Club should promptly implement the agreement of December 1991 to provide debt relief for the poorest heavily indebted countries pursuing structural adjustment; debt relief measures should be kept under review so as to address the continuing difficulties of those countries;

⁴⁵ The best known example is the Jubilee movement, which began as a global campaign to cancel third-world debt by the year 2000.

⁴⁶ Online: Friends of the Earth International, <<http://www.foei.org/ecodebt/index.html>>.

We demand its unconditional cancellation and the reparation of historical, social, and ecological debts, as immediate steps toward a definitive resolution of the crisis this Debt provokes.⁴⁷

Since that time, NGO networks have been formed to work on this issue both in the South (the Southern Peoples' Ecological Debt Creditor Alliance, SPEDCA)⁴⁸ and in the North (the European Network for the Recognition of Ecological Debt, ENRED).⁴⁹

While very visible within the NGO community, there have been few references to the concept of ecological debt at an intergovernmental level. The South Summit, a meeting of Heads of State of the G-77 held in Havana, Cuba in 2000, advocated "a solution for the serious global, regional and local environmental problems facing humanity, *based on the recognition of the North's ecological debt*, and the principle of common but differentiated responsibilities of the developed and developing countries."⁵⁰ However, there was no attempt to explain this reference or what it entailed. FOE unsuccessfully tried to have ecological debt included as a topic at the 2002 World Summit on Sustainable Development (WSSD).⁵¹ Despite the lack of official recognition, the concept was brought forward at the WSSD by various NGOs and NGO coalitions in addition to FOE, including the Heinrich Böll Foundation,⁵² the World Council of Churches,⁵³ and the Nordic NGOs.⁵⁴ It continues to have resonance in civil society, and there

⁴⁷ "Porto Alegre Appeal for Mobilisation," online: <<http://www.focusweb.org/publications/2001/Porto%20Alegre/POA%20declaracion%20-%20mov%20soc%20-%20ingles.htm>>.

⁴⁸ Online: Deuda Ecologica <<http://www.deudaecologica.org/>>.

⁴⁹ Online: ENRED - European Network for the Recognition of the Ecological Debt <<http://www.enredeurope.org/principal.htm>>.

⁵⁰ "Declaration of the South Summit", online: G-77 <http://www.g77.org/main/docs/summitfinaldocs_english.pdf> at 12 [emphasis added].

⁵¹ Daniel Mittler of FOEI notes "FOEI has thus far not succeeded in making ecological debt an official Summit topic, although we will continue our efforts in the run-up to Johannesburg. We did however get the topic on government radar screens at the second PrepCom. India, for example, took up ecological debt in the plenary and acknowledged they did so due to our campaigning. There was also considerable press interest in the issue." Daniel Mittler, "Right Topics, Wrong Answers: Trade Agenda and Greenwash to Smother Johannesburg Summit?" online: Friends of the Earth International <<http://www.foei.org/wssd/greenwash.html>>.

⁵² Wolfgang Sachs, ed., *The Jo'burg Memo: Fairness in a Fragile World, Memorandum for the World Summit on Sustainable Development*, online: Heinrich Böll Foundation <http://www.worldsummit2002.org/publications/memo_en_with.pdf>.

⁵³ "North Owes South Huge Ecological Debt", online: World Council of Churches <<http://www.wcc-coe.org/wcc/what/jpc/north-owes.pdf>>.

⁵⁴ "Nordic NGOs Viewpoints and Suggestions", online: 92-gruppen <<http://www.92grp.dk/politik/demener/Baeredygtig%20udvikling/norduk.htm>>.

appears to be growing academic interest, as evidenced by a number of conferences held in recent years exploring the concept and its potential applicability to both domestic and international environmental policy.⁵⁵

B. *The Concept of Ecological Debt*

The conceptual origins of ecological debt are closely connected with external debt. It is not a coincidence that the concept originates in Latin America; since the time of independence from Spain, Portugal, and other colonial powers, indebtedness to foreign entities has plagued the Latin American nations.⁵⁶ More recently, the so-called debt crisis of the late 1970s and early 1980s left the region experiencing significant political and economic turmoil, as governments attempted to meet payments that ate up an ever increasing proportion of foreign exchange earnings. This phenomenon was experienced all over the developing world; it is estimated that debt service of all the developing countries increased from 13.3 per cent of exports of goods and services in 1970 to 20.4 per cent in 1990.⁵⁷ The sheer magnitude of the problem gave rise to widespread attempts to come to terms with its moral and historical dimensions, in addition to its economic and political impacts.⁵⁸ Far from being an academic exercise, the development of the concept of ecological debt represented a response to a situation that was experienced as oppressive and unjust. It attempts to turn the whole notion of “indebtedness” on its head. Instead of the nations of the North being seen as creditors, ecological debt assumes they ought to be seen as owing an enormous amount to the peoples of the South, who have borne many of the costs of environmentally unsustainable development but have reaped few of its benefits.

History plays a key role in the concept of ecological debt. It emphasizes that present-day environmental problems do not arise in a vacuum; they are often the result of a long, often slow, and cumulative

⁵⁵ For example, in May 2004, a conference on “The Concept of Ecological Debt: Its Meaning and Applicability in International Policy” was organized by the Center for Sustainable Development at Ghent University. The programme is available online: <http://cdonet.ugent.be/onderzoek/ecological_debt/programme_040518.htm>. The conference was part of a research project on ecological debt being carried out by several departments at Ghent University, in collaboration with the NGO Flemish Platform for Sustainable Development.

⁵⁶ See Gonzalo Biggs, *La crisis de la deuda externa frente a los precedentes históricos* (Buenos Aires: Grupo Editor Latinoamericano, 1987).

⁵⁷ James H. Mittelman & Mustapha Kamal Pasha, *Out from Underdevelopment Revisited: Changing Global Structures and the Remaking of the Third World* (New York: St. Martin's Press, 1997) at 26.

⁵⁸ See e.g. Patricia Adams, *Odious Debts: Loose Lending, Corruption, and the Third World's Environmental Legacy* (Toronto: Earthscan Canada, 1991).

process. Responsibility for addressing those problems, according to this view, cannot be assigned based on present activities; it requires an identification of those involved all the way along the process. The argument is particularly persuasive with regard to global problems such as ozone depletion and climate change, but has also been applied to issues ranging from the transport of hazardous wastes to biopiracy.

Despite the importance of history, however, the concept does not assume that responsibility hinges only on the earlier imbalances with regard to resource utilization and appropriation of ecological carrying capacity. Instead, ecological debt traces many of the benefits presently enjoyed by the North to its longstanding ability to draw upon global resources. The moral responsibility with regard to ecological debt, in other words, does not derive from visiting the “sins of the fathers” upon present generations in the North. Instead, it arises from an acknowledgment that the privileged position of the developed countries represents the culmination, and in many cases the perpetuation, of a history of unequal access.

At first glance, the notion of ecological debt may appear to be deeply anthropocentric; the talk of resources and appropriation seems to assume that the only limitations on human exploitation of nature are the rights and interests of other humans. This is not the case. Joan Martinez-Alier, the best known academic commentator on the concept, has pointed out that there is an ecological debt owed to future generations and to other species.⁵⁹ While frequently mentioned, this variety of ecological debt has clearly not been given priority. The emphasis on the rights of the peoples of the South is understandable given the origins of the concept, but it is also consistent with approaches to environmental ethics that highlight the human and social dimensions of environmental problems, such as social ecology, environmental justice, and eco-feminism.

C. *Ecological Debt and Climate Change*

Climate change is well-suited to an ecological debt analysis, for a number of reasons. First, there is little doubt that current GHG concentrations in the atmosphere are the result of a long process, going back at least two hundred years. Second, there is a clear difference in historical emissions of GHGs on the part of developed and developing countries. According to one study, between 1800 and 1990 the developed

⁵⁹ Joan Martinez-Alier, “The Ecological Debt: The campaign and its future”, online: Center for Sustainable Development at Ghent University <<http://www.vodo.be/documenten/ecodebt%20conf040518%20Future%20of%20campaign.ppt>>. PowerPoint presentation at conference noted in *supra* note 55.

countries accounted for over 84 per cent of all carbon dioxide emissions caused by fossil-fuel burning, and over 75 per cent of the carbon dioxide emissions associated with deforestation.⁶⁰ The timing is not coincidental; there are clear indications that GHG concentrations began to increase steadily as the process of industrialization gained momentum. Finally, climate change is an area in which there appears to have been a political willingness to acknowledge this imbalance, as reflected in the preamble to the UNFCCC, which notes

that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that *per capita* emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs.⁶¹

For all these reasons, but perhaps most importantly because of its visibility as the single most pressing environmental challenge currently facing the international community, climate change has been one of the most frequently cited applications of the ecological debt concept, and has in fact given rise to a specialized term, the “carbon debt.”⁶²

In themselves, the historical reality of unequal contributions to GHG concentrations, and even its political acknowledgment, are of limited value in determining climate change policy. In the interstate context, they are central to the notion of “common but differentiated responsibilities,” but have had few implications apart from insulating developing countries from mandatory emissions reduction commitments. For those demanding a recognition of the carbon debt, on the other hand, the implications are monumental. At a practical level, debt requires payment. An obvious difficulty arises in calculating what that payment would involve. At least two possibilities have been identified.⁶³ The first is that the carbon debt should be quantified in terms of “damage costs,” in other words, the costs associated with future losses due to climate change. The second would quantify “abatement costs,” the costs associated with reducing current emissions to levels consistent with the scientific estimates of what is required to avoid interference with the global climate. In either case, the

⁶⁰ Richard A. Warrick & Atiq A. Rahman, “Future Sea Level Rise: Environmental and Socio-Political Considerations” in Irving L. Mintzer, ed., *Confronting Climate Change: Risks, Implications and Responses* (Cambridge: Cambridge University Press, 1992) 97 at 105.

⁶¹ Preamble, *United Nations Framework Convention on Climate Change*, 9 May 1992, 1771 U.N.T.S. 30822 (entered into force 21 March 1994) at 2.

⁶² See e.g., “Who owes who: climate change, debt, equity and survival,” online: Christian Aid <<http://www.christian-aid.org.uk/indepth/9909whoo/whoo1.htm>>.

⁶³ Martinez-Alier, *supra* note 38 at 230.

sums involved are enormous. One study estimated that “a total annual subsidy of US\$75 billion is forthcoming from south to north.”⁶⁴

However, many proponents of the notion of a carbon debt do not regard monetary damages as being their top priority. In part, this stems from an acknowledgment of the technical difficulties involved in quantification, and of the political resistance such a proposal would likely encounter. Furthermore, there appears to be some reluctance to calculate the value of nature, perhaps because many regard such calculations as representing a perpetuation of the ways of thinking that have led to the current environmental crisis. Most importantly, however, there is a sense that the enormity of the costs associated with environmental damage are invoked precisely because they cannot be met; the assumption seems to be that presenting the North with a potentially enormous bill might actually get them to pull back from the table. As Martinez-Alier puts it, “The claim of the ecological debt, when it becomes an important topic on the international political agenda ... will contribute to the ‘ecological adjustment’ which the North must make.”⁶⁵

D. *The Story of Repaying Ecological Debt*

The story told by the proponents of ecological debt regarding the past, present, and future of international environmental law seems to be poles apart from the story of a level playing field. Yet ecological debt, too, seeks a level playing field, but with a twist: it insists that the field can only be level after accounting for the benefits that some have enjoyed, and the burdens that others have borne. Ecological debt demands an acknowledgment of connections; of the fact that privilege and poverty are not disconnected phenomena. Furthermore, there is more than fairness at stake, important though it is. It should come as no surprise that many of the organizations concerned with ecological debt, and debt relief more generally, are faith-based, for what is demanded is not just a sense of responsibility but a sense of solidarity. It might be precisely this invocation of something beyond mere fairness that makes ecological debt proponents vulnerable to accusations of naïveté, and makes their demand for reparation run the risk of melding with countless other demands for recognition and response to historical injustices. However, there appear to have been attempts to remedy this problem by thinking about “compensation” in non-traditional ways, and by linking the concept to other

⁶⁴ *Ibid.* at 231. Martinez-Alier cites a 1995 study by Jyoti Parikh, a member of the Intergovernmental Panel on Climate Change.

⁶⁵ *Ibid.* at 233.

theories of sustainability.

There is no doubt that debt forgiveness is regarded as the first step in repaying the ecological debt. Despite the idealism inherent in these proposals, the proponents of ecological debt recognize that even if the developed world were to acknowledge the extent to which it has benefited from activities that have harmed the environment and peoples of the developing world, and therefore recognized its responsibility to address the situation, this could not be done completely or even primarily through financial compensation. However, what appears to be regarded as absolutely essential is a shift in current patterns of resource flows from South to North. This could begin with forgiveness of significant portions of the external debt of the countries least able to afford their payments, but would presumably then extend to a more comprehensive elimination of oppressive external debt loads.

Beyond this, the proponents of ecological debt draw on work done by others on what is required to bring about a more equitable and sustainable allocation of global resources. One approach is a process labeled “contraction and convergence.”⁶⁶ On the one hand, the North would have to undertake changes to reduce its environmental impacts; on the other, the South would undertake a development path that would enable it to meet the aspirations of its peoples. In the climate change context, this would require a substantial decrease in GHG emissions in the North, while those emissions would increase in the South. The ultimate outcome is not intended to reflect absolute parity in the worldwide emissions; there is a recognition that emissions might vary according to climate and other conditions (for example, in colder climates, emissions related to heating are likely to be significantly higher regardless of technological advances in fuel efficiency and insulation).

The contrast between the bold demand for debt forgiveness and the soft-spoken follow-up regarding sustainability may appear somewhat incongruous. What must be kept in mind, however, is that the ultimate goal appears to be an international community based on solidarity rather than on competition. The language of debtors and creditors is invoked, at least in part, in order to disrupt the received wisdom of who occupies those roles. The enormity of costs is intended to drive home the point that some forms of damage cannot be quantified by conventional means. By speaking a language that the mainstream is able to understand, in other words, there appears to be a hope that the need to go beyond that language will become clear.

⁶⁶ *Ibid.*

IV. MAKING ENVIRONMENTAL SPACE

A. *The Origins and Concept of Environmental Space*

[A] fair distribution of environmental space use safeguards the social cohesion of our societies, their caring capacity, which is just as important to sustainable development as the carrying capacity of our ecosystems.⁶⁷

Unlike ecological debt, the concept of environmental space originated in the academy. J.B. Opschoor, presently at the Free University of Amsterdam, is generally credited with introducing the term in 1987, albeit first in a somewhat expanded version (“environmental utilisation space”). The concept was adopted by FoE Netherlands in preparing the *Action Plan for a Sustainable Netherlands*, first published in 1990; the English translation was published in 1993 and gave the concept a wider international audience.⁶⁸ In 1994, FoE Europe, in cooperation with the Wuppertal Institute for Climate, Environment, Energy, prepared a report entitled *Towards Sustainable Europe*,⁶⁹ applying the concept on a continental basis. In the late 1990s two studies were published which attempted to develop a broader set of principles: *Sharing the World: Sustainable Living & Global Equity in the 21st Century*,⁷⁰ and *Greening the North: A Post-Industrial Blueprint for Ecology and Equity*.⁷¹

The two underpinnings of the concept of environmental space, as it has developed over the past fifteen years, are ecological limits and equity. The early academic analysis focussed on the former; the premise was that environmental space “reflects the fact that at any given point in time, there are limits to the amount of environmental pressure that the Earth’s ecosystems can handle without irreversible damage to these systems or to the life support processes that they enable.”⁷² Despite a recognition that the notion of limits also required a consideration of how environmental space is to be allocated, the concept itself, as used in the early academic literature,

⁶⁷ Joachim H. Spangenberg, “Environmental space and the prism of sustainability: frameworks for indicators measuring sustainable development” (2002) 2 *Ecological Indicators* 295 at 306.

⁶⁸ Friends of the Earth Netherlands (Amsterdam: Milieudefensie, 1993) [*Sustainable Netherlands*].

⁶⁹ J.H. Spangenberg, ed., *Towards Sustainable Europe: A Study from the Wuppertal Institute for Friends of the Earth Europe* (Luton/Brussels: FoE Publications, 1995) [*Sustainable Europe*].

⁷⁰ Michael Carley & Philippe Spapens (London: Earthscan Publications, 1998) [*Sharing the World*].

⁷¹ Wolfgang Sachs, Reinhard Loske & Manfred Linz, trans. by Timothy Nevill (London: Zed Books, 1998).

⁷² John Hille, *The Concept of Environmental Space: Implications for Policies, Environmental Reporting and Assessments* (Copenhagen: European Environment Agency, 1997), online: <<http://reports.eea.eu.int/92-9167-078-2/en/space.pdf>> at 7.

did not incorporate a distributional element. In contrast, *Sustainable Netherlands* and *Sustainable Europe* redefined environmental space so as to include equity as an integral component. *Sharing the World* uses the following definition:

Environmental space is the total amount of energy, non-renewable resources, land, water, wood and other resources which can be used globally or regionally:

- without environmental damage
- without impinging on the rights of future generations; and
- within the context of equal rights to resource consumption and concern for the quality of life for all peoples in the world.⁷³

Commentators have pointed out that the concerns about the unsustainable rate of global resource consumption are reminiscent of widespread unease in the early 1970s regarding resource exhaustion, captured most memorably by the Club of Rome in its 1972 publication, *The Limits to Growth*.⁷⁴ John Hille argues that environmental space differs from “limits to growth” in at least two fundamental respects. First, there is now a more sophisticated understanding of the potential of technology to overcome resource limitations—coupled with an awareness and acceptance of the fact that this potential is itself subject to limitations. Second, environmental space emphasizes global equity; according to Hille, *The Limits to Growth* “skirted the issue of distribution entirely.”⁷⁵

Equity itself, of course, is subject to different interpretations. The notion of entitlement to a share of global resources requires some method whereby such entitlement is to be calculated. The most obvious would be to allocate environmental space to a country or region based on its population. *Sustainable Europe* uses this method, with one significant modification: after a certain point in time (2010), increases in population would no longer give rise to an increase in environmental space. As Hille describes it, “[C]ountries whose population goes on growing after that date will see their per capita environmental space decreasing, whereas it will remain constant in countries whose population is constant and increase if

⁷³ *Supra* note 70 at 9.

⁷⁴ Donella H. Meadows *et al.*, *The Limits to Growth: A Report for the Club of Rome’s Project on the Predicament of Mankind* (New York: Universe Books, 1972) [*Limits to Growth*].

⁷⁵ *Supra* note 72 at 9. Similarly, Carley & Spapens note that *Limits to Growth* emphasized the limits of the resources available for consumption, while environmental space emphasizes the limits to the capacity of ecosystems to absorb the environmental impacts of resource exploitation. *Sharing the World*, *supra* note 70 at 60.

population declines.”⁷⁶ Hille notes that this is justified by some notion of collective responsibility for reproductive behaviour, but points out that future generations “can neither be held responsible for their place of birth, nor for the reproductive behaviour of their own or their neighbour’s parents.”⁷⁷

A per capita allocation of environmental space does not take into account historical responsibility for resource depletion.⁷⁸ This, of course, is the most obvious difference between this concept and that of ecological debt, and is arguably the aspect that is most likely to make it more politically palatable. Despite this advantage, environmental space does not appear to have had the same resonance as ecological debt, at least not at the international level. Environmental space figured prominently in a document produced by the South Centre in 1991, entitled “Environment and Development: Towards a Common Strategy for the South in the UNCED Negotiations and Beyond.”⁷⁹ However, the concept does not appear to have been taken up by Southern governments or negotiating alliances at the Earth Summit, or since that time. Even FOE appear to have allowed the concept to fall from its place of primary importance. Although the FOE International website includes a reference to environmental space, it is in the context of its ecological debt campaign.⁸⁰

B. *Environmental Space and Climate Change*

Climate change offers a particularly good opportunity to apply the environmental space concept. The atmosphere is a truly global resource. Thus, there are few of the difficulties associated with determining whether the benefits associated with it are to be allocated on a differential basis from region to region or state to state.⁸¹ Similarly, the overall effects of climate change will be global, although there will undoubtedly be significant variations in the impacts that will be experienced around the world. The conceptual underpinnings of the environmental space concept, if not the actual terminology, have clearly been at issue in academic and non-

⁷⁶ *Ibid.* at 10.

⁷⁷ *Ibid.* at 13.

⁷⁸ *Ibid.*

⁷⁹ Online: South Centre <http://www.southcentre.org/publications/conundrum/conundrum-07.htm#P834_192055>.

⁸⁰ *Supra* note 46.

⁸¹ In contrast, a resource like arable land raises difficulties because of the question of whether it should be shared among regions.

governmental discussions of how to allocate rights in relation to climate change. This has led to some heated exchanges. One of the best-known examples was the scathing critique produced by the New Delhi-based Centre for Science and Environment (CSE) of a World Resources Institute (WRI) report discussing global responsibility for climate change.⁸² The WRI report, having listed the countries with the highest emissions of GHGs, asserted that “responsibility for greenhouse emissions is spread widely around the world. Three of the six countries that are the largest contributors to the atmosphere’s warming potential—the United States, the Union of Soviet Socialist Republics, Brazil, China, India and Japan—have heavily industrialized economies; three do not.”⁸³ The report goes on to conclude “Global warming is truly a global phenomenon, in both cause and potential effect.”⁸⁴

The CSE responded with a report, the title of which encapsulated its sense of moral outrage: *Global Warming in an Unequal World: A Case of Environmental Colonialism*.⁸⁵ The authors of the report, Anil Agarwal and Sunita Narain, took issue with many aspects of the WRI analysis. One concern centred on the dramatic differences between the historical contributions of developed and developing countries to the current levels of GHGs in the atmosphere and the need to see current emission levels in that context. More importantly, however, the WRI analysis was attacked for comparing current GHG emissions without distinguishing between “luxury emissions” and “survival emissions.”⁸⁶ As Agarwal and Narain asked, “Can we really equate the carbon dioxide contributions of gas guzzling automobiles in Europe and North America or, for that matter, anywhere in the Third World with the methane emissions of draught cattle and rice fields of subsistence farmers in West Bengal or Thailand?”⁸⁷ Finally, and most importantly, the report took issue with the WRI’s premise that a nation’s potential contribution to climate change can be calculated on the basis of its emissions. While the WRI report assumed that carbon sinks such as the oceans and vegetation would simply not be factored into the equation, Agarwal and Narain insisted that these sinks themselves are

⁸² World Resources Institute, “Climate Change: A Global Concern,” in *World Resources 1990-91* (New York: Oxford University Press, 1990) 11.

⁸³ *Ibid.* at 15.

⁸⁴ *Ibid.* at 17.

⁸⁵ Anil Agarwal & Sunita Narain, *Global Warming in an Unequal World: A Case of Environmental Colonialism*, looseleaf (New Delhi: Centre for Science and Environment, 1991).

⁸⁶ *Ibid.* at 5.

⁸⁷ *Ibid.*

global resources, to be allocated on a per capita basis.⁸⁸ Writing about this exchange later, they noted:

Though apportionment of the carbon dioxide and methane sinks was inherent in the WRI model, it was not made explicit. When this apportionment was unravelled it was found that countries which produced larger quantities of CO₂ or methane had been given a larger share of the sinks. CSE questioned these calculations as these sinks are largely global common property. They should be equitably shared by all human beings on earth. Once this value assumption was built into the WRI model, the distribution of responsibility for global warming changed dramatically across the nations of the earth.⁸⁹

Agarwal and Narain pointed out that their analysis reflected “[t]he idea that global environmental space should be equitably shared amongst all human beings.”⁹⁰ Their critique reflects the most important aspect of the concept of environmental space as it has evolved; that to speak of limits, without speaking of equity, risks perpetuating an international distribution of resources that is fundamentally skewed in favour of the North.

C. *The Story of Making Environmental Space*

Like ecological debt, environmental space offers a very different vision of the goal of international environmental law and policy than “the level playing field.” It not only labels the existing distribution of resources as unfair, but it also offers a way of demonstrating that unfairness by highlighting the significant discrepancy in consumption patterns between North and South. On the surface, it appears less extreme than ecological debt, and therefore more acceptable to those accustomed to operating within the normal parameters of social policy. However, it demands a similarly comprehensive re-evaluation of those parameters.⁹¹ According to Hille, “[t]o live within our environmental space, we will need both to radically restructure our economies and to rethink our ways of living, eating and moving about.”⁹²

Radical restructuring, however, is recognized as a gradual process. The assumption seems to be that this has to be undertaken in such a way as to avoid significant social disruption in the North. The point is not to

⁸⁸ *Ibid.* at 10.

⁸⁹ Anil Agarwal & Sunita Narain, “The Sharing of Environmental Space on a Global Basis,” in *Sharing the World*, *supra* note 70, 177 at 177.

⁹⁰ *Ibid.*

⁹¹ See generally Ton Bührs, “Sharing Environmental Space: The Role of Law, Economics and Politics” (2004) 47 *J. Envtl. Plan. Mgmt* 429.

⁹² *Supra* note 72 at 19.

impose a set of restrictions that might be perceived as punitive in nature, but to move steadily towards a different approach to economic prosperity. In the climate change context, for example, despite the dramatic decrease in GHG emissions that is required by developed countries, many of the changes that are contemplated by an environmental space analysis would not be out of place in any governmental policy document: improving energy efficiency, encouraging the use of alternative energy sources, or educating the public about the need for reducing emissions from a range of sources. This is not a matter of telling people to get out of their cars and onto bicycles, but of asking them to think carefully about the environmental impacts of their activities and to make changes where those will be most effective from both an individual and societal viewpoint.

Thinking about the environment requires changes just as fundamental as those associated with economic structures. As the term itself indicates, environmental space requires an attitude of respect and deference towards natural processes and natural limitations. Precaution becomes a touchstone of environmental policy. In the climate change context, of course, this poses a potentially significant challenge to the need for incrementalism in the economic sphere, since it is estimated that dramatic reductions in current levels of GHG emissions would be required in order to avoid anthropogenic interference with the atmosphere.

It is in this sense that environmental space proponents see the need for leadership by developed countries. Of all the approaches surveyed here, this approach is the one that is most consistent with that of the UNFCCC and the Kyoto Protocol itself; it requires countries to take the lead because of both their historic contributions to GHG concentrations and their current rate of emissions. Having created the model for unsustainable development, the North now needs to show that it is possible to pursue an alternative path that is environmentally sustainable and socially equitable. It should be noted that this is not a matter of creating and then exporting a new model of development—since environmental space analysis emphasizes attention to cultural and ecological diversity—but of showing that alternatives are actually possible.

The end product of the developed countries “making environmental space” would be a stable and sustainable international order. Much like the goal proffered by ecological debt analysis, environmental space analysis envisages both developed and developing countries converging towards generally similar ecological footprints. There appears to be an expectation that consumption may still be lower on a per capita basis in certain countries and regions, but the premise is that all peoples would enjoy basic economic, social, and cultural rights: adequate housing, nutrition, health care, education, and so on. Equity would not be limited to the international

sphere; it would also apply domestically to ensure that vast discrepancies in consumption do not occur within nations. Environmental protection would not be just one factor to be taken into account in policy planning and implementation. Instead, it would set the parameters within which any and all policy discussions would take place. This vision is, in its own way, as idealistic as that of repaying ecological debt, and perhaps even more so, given that it specifically sets out the fundamental changes in lifestyle that will be required to achieve it, while ecological debt analysis only hints at those changes.

V. COMPARING THE STORIES

The three stories surveyed above, and the concepts or approaches from which they are drawn, represent such different perspectives on the aims of international environmental law and policy that they may seem to offer little basis for meaningful comparison. Nevertheless, it is useful to undertake a comparative analysis, not only to recognize the specific differences, but also to identify any potential similarities or points of convergence. The discussion that follows attempts to focus the comparison by examining three key issues: perceptions of economy and development, perceptions of the environment, and perceptions of the respective roles of developed and developing countries in attempting to address and resolve environmental problems. This is followed by an analysis of the implications of each of these stories for international environmental law.

A. *Economy and Development*

Presuppositions regarding economic prosperity and the meaning of development are inextricably woven into each of the three stories considered. It is not always easy to identify these assumptions in the story of the level playing field, since they are largely unarticulated. In the case of ecological debt and environmental space, on the other hand, the emphasis on critiquing mainstream thought provides relatively clear insight into what is perceived as being problematic about current structures, even if it is not always clear what is proposed as an alternative.

In all of the positions analyzed in the discussion of the U.S. approach to the Kyoto Protocol, whether that of the U.S. Senate, the George W. Bush Administration, or the Kerry-Edwards campaign, one sees a concern about harm to the U.S. economy, the importance of cost-effectiveness, and the necessity of avoiding any disruption of the status quo. There is no indication of a willingness to make sacrifices, or to incur short-term costs in order to ensure long-term economic prosperity. Mainstream

economic thinking remains the touchstone of debate. On the other extreme, ecological debt proponents appear to have little faith in mainstream approaches to economics and environmental protection. If anything, these approaches are viewed as being largely responsible for the current economic and environmental problems facing many developing nations; these nations find themselves subject to the disciplines of international financial institutions and forced to take the bitter medicine they prescribe for debt relief. What is proposed as an alternative is not always fully articulated. However, the focus appears to be on attempting to achieve an acknowledgment of the gross unfairness of the present rather than on visualizing an alternative model. The focus in environmental space analysis, in contrast, is precisely on the need to rethink existing models, formulating mechanisms by which nations can come to live within appropriate ecological constraints. While it seems to share the skepticism regarding mainstream economic thought, it is less sweeping in its condemnation. This may be due in part to its emergence from the academy, and the perceived need to make it useful as a tool of policy analysis as well as advocacy.

B. *Environment*

As with the economy, there are very different perceptions of the environment embedded in each of these stories. If the economy is ever-present and its centrality unquestioned in the story of the level playing field, the environment is almost completely absent. For example, the Byrd-Hagel Resolution itself mentions environmental protection only in connection with the exclusion of developing countries, noting that their emissions are rapidly increasing and that exempting them from the Protocol is “environmentally flawed.” There is a background assumption that protection of the environment is important, but it remains abstract; there is little discussion of the potential effects of climate change, for example, even if it is recognized as a serious environmental problem. In contrast, ecological debt analysis makes the damage resulting from environmental degradation the central focus. Nevertheless, it might also relegate the environment to the background, since its focus remains resolutely upon the human costs of environmental problems. The concept of environmental space appears to be less anthropocentric than either the level playing field or ecological debt. In a sense, environmental space analysis reverses the focus on economic harm that characterizes the level playing field; it is environmental harm rather than economic harm that is to be avoided at all costs. Like ecological debt analysis, environmental space emphasizes the need for equity in environmental policy. However, equity is not (and arguably from this perspective, cannot be) separated from and prioritized over environmental integrity.

C. *The Role of Developed and Developing Countries*

In contrast to perceptions of the economy and environment, the perceptions about the respective roles of developed and developing countries in addressing global environmental problems are not difficult to discern. The U.S. position on this issue appears to be fairly consistent across the political spectrum. There is an acceptance that developed countries must take a leadership role in addressing issues such as climate change, but leadership is conceptualized narrowly in a way that minimizes any acceptance of responsibility for past or present environmental degradation. In fact, the U.S. approach appears to require developing countries to accept responsibility: to recognize the seriousness of the threat of climate change, and to respond appropriately. The unspoken assumption is that limiting emissions increases is somehow a less onerous obligation than reducing existing emissions, in other words, denying developmental aspirations is more acceptable than requiring sacrifices of current standards of living.

Ecological debt and environmental space, of course, tell very different stories that dovetail with little difficulty. Ecological debt places the burden of resolving global environmental problems squarely on the North: it caused the problems in the past, continues to perpetuate them in the present, and must address them and compensate those that have suffered as a result. While ecological debt analysis does not rule out the responsibility of developing countries, and recognizes the need to avoid a repetition of predatory and unsustainable patterns of development, its focus remains resolutely upon developed countries. Environmental space is somewhat less one-sided, but it allocates the burden in largely the same way. Developed countries are required to undertake a radical shift in current consumption levels and to offer the possibility of alternative models of development that may be of some use to the developing countries in their attempt to forge their own path to meeting the needs of their populations. Developing countries must attempt to live within their own environmental space, which will require a willingness to question and reject many of the orthodox understandings of development that have held sway in governmental and elite circles since the time of decolonization.

D. *Implications for International Environmental Law*

Unlike the perspectives on economy, environment, and the roles of North and South, there is little in any of the stories examined here about international environmental law per se, and one therefore has to extrapolate.

The U.S. position and the story of the level playing field would lead

international environmental law in a direction that might not look all that unfamiliar, but would arguably have normative underpinnings quite different from those that currently prevail. The United States, after all, represents one version, albeit the most extreme, of a position that has been taken by developed countries since the beginnings of international environmental cooperation. Developing countries are viewed as having to be led towards a more environmentally friendly and economically efficient way of organizing their societies, the model for which has already been set in the North. From this perspective, the role of international environmental law is a facilitative one: to provide a framework, with minimal interference and maximum flexibility, for achieving environmental protection through the operation of the free market and technological innovation. Principles such as “common but differentiated responsibilities” are denuded of their normative content and reinterpreted in purely practical terms, with obligations based on ability to pay. Developed country leadership is similarly limited in scope. Joyeeta Gupta captured this sentiment in the climate change context by describing the developed countries’ attitude as “we will lead as long as you promise to follow soon.”⁹³

The language of ecological debt is in many ways more unfamiliar to those working in the international environmental law field. As indicated above, despite some progress that has been made in acknowledging historical responsibility for environmental degradation, most notably in the climate change context, international environmental law has been resolutely forward-facing. It is, in many ways, a pragmatic discipline, which is to a large degree completely understandable; it seeks to reverse and prevent environmental degradation across a broad range of sectors, rather than attempting to assign responsibility for existing damage. It is also all too familiar with the need for compromise; history can be factored in if politically necessary, but it is by no means dictated by the internal logic of the discipline itself.

Of all of the stories examined here, that of making environmental space most closely corresponds to international environmental law as it has evolved in the post-UNCED period, with its emphasis on reconciling environmental protection with development, and balancing the needs of both present and future generations. However, environmental space analysis poses a challenge to the leisurely pace of most international efforts to address both environmental problems and developmental aspirations; were it to be taken seriously as a conceptual foundation for the field, there is little doubt that it would challenge the status quo at the most fundamental level, despite the fact that it appears to be less political than

⁹³ *Supra* note 13 at 49.

ecological debt. Environmental space advocates might recognize the need for incremental change, but the ultimate goal is a radical shift in public policy. It is here that it runs counter to prevailing approaches, which emphasize incrementalism and tinkering at the margins of existing economic and political paradigms.

Despite the difference between the three stories, there is some common ground. The United States, despite its insistence on fairness and equality, does not really want to make all countries shoulder the same burden for climate change or other global environmental problems. And the proponents of ecological debt, no matter how devoted to an ideal of reparation for historical injustices, do not really expect the North to quantify and pay for the costs of all forms of environmental degradation. All three stories seek and value some form of fairness; though the concept is interpreted and deployed in radically different ways, the common language offers at least some possibility of dialogue. All three strive for an international order that can operate within ecological constraints, although the U.S. view appears to regard those constraints as being considerably more malleable than would be accepted by the others. However, it is important not to lose sight of the very real differences between these stories, and the vision of international community that they convey.

VI. CONCLUSION

A film released in 2004, “The Day After Tomorrow,” presented an apocalyptic vision of the effects of climate change, with extreme weather battering large portions of the United States beyond recognition. Turning the page of a newspaper from an ad for the movie, one could find photographs of the victims of severe monsoon flooding in South Asia, the worst in years: women lining up to get food aid, a man carrying a child on his shoulders while wading through water up to his armpits. These, of course, are the scenarios that present the real face of climate change, catastrophic in their own right, if not offering the same kind of Hollywood drama. In Bangladesh alone, it is estimated that more than 30 million people were affected by the floods; some lost their crops or homes, others their lives.⁹⁴ Economic losses are thought by the Bangladeshi government have exceeded seven billion dollars.⁹⁵

How does one respond to a situation like this? The most common

⁹⁴ “Asia: In all the wrong places; South Asia’s floods” *Economist* 372:8387 (7 August 2004) 52.

⁹⁵ A joint World Bank/Asian Development Bank report estimated the damages at around 2.2 billion dollars, considerably lower than the government estimate. However, this was before the latest series of floods in September 2004.

response is simply to pass it by as yet another example of human misery, among the countless others that greet us along with our morning coffee. Others respond with generosity, reaching out to those in need through charitable donations to Oxfam or UNICEF. How sad, we think, and go on with our days. But what if it isn't so easy to distance ourselves from what happens in Bangladesh? What if we were to become aware that it is our choices, our lifestyles, that may in fact contribute to the vulnerability of others to floods in South Asia, or to drought in sub-Saharan Africa, or to hurricanes in the Caribbean?

In Europe, Canada, and other parts of the developed world, despite concerns about the costs of implementing the Kyoto Protocol, there is an awareness of the seriousness of the problem, and at least an emerging sense of responsibility. It may well be that this is also the case in the United States. As noted previously, recent polls have indicated that the American public wants something done about climate change. They expect government to take action, but may be unclear on what type of action is required and what the potential impact on their own lives might be. In the 1970s, popular concern about the ozone layer largely drove policy, and U.S. consumers did their part by rejecting aerosols. But changing deodorants is a far cry from changing lifestyles, and it is the latter that may be required if a meaningful response to climate change is to be crafted.

If that is the case, if those in the North really do have to rethink our ways of living, then the choice of story becomes critical. The level playing field, whatever its merits, does little to challenge fundamental assumptions about economy and lifestyle. Yet many would argue that it is precisely what is required. One can certainly engage in the debate regarding whether to take action on climate change in economic terms, arguing that the costs associated with implementation of the Kyoto Protocol targets will be relatively insignificant, or throwing out some of the figures regarding the potential costs of adapting to climate change. One could propose a comparison with the international efforts to address ozone depletion; one 1997 study, for example, calculated that the total costs associated with all measures to protect the ozone layer were 235 billion dollars (U.S.), while the benefits associated with those measures, focussing only on reduction of damage to fisheries, agriculture and materials, were estimated to be approximately 459 billion dollars, nearly twice that amount.⁹⁶

⁹⁶ The study was entitled "The Right Choice at the Right Time." See "Global benefits and costs of the Montreal Protocol a summary of study results," (1997) online: Environment Canada <http://www.ec.gc.ca/press/protocol_b_e.htm>. It was carried out by Environment Canada for the 10th anniversary of the Montreal Protocol. The costs were those associated with all measures taken to protect the ozone layer, not only in Canada but throughout the international community. The study acknowledged that the benefits were more difficult to quantify. What is striking is that there was not

The stories told by ecological debt and environmental space remind us that a focus on economic costs risks overshadowing some of the other costs that need to be factored in as well: ecological costs, evaluated by the impact on ecosystems that climate change will cause; human costs, measured by the disruption and dislocation that it will trigger; and moral costs, which may be the hardest to quantify of all. What are we really saying, after all, if we say that the economic costs of the Kyoto Protocol are too high? That the right of some to drive sport utility vehicles is more important than the right of others to continue to occupy their homes?

The alternative stories considered here ask us to confront these difficult questions, and to acknowledge that Northern privilege does not arise in a vacuum. It is not a challenge that is completely without precedent. On the domestic front, in the late 1960s and early 1970s, the developed nations came to terms with the ecological and human costs of environmental degradation. They were willing to see these in terms of obligation. In 1970, for example, then President Richard Nixon proclaimed, “the 1970s absolutely must be the years when America pays its debt to the past by reclaiming the purity of its air, its waters, and our living environment. It is literally now or never.”⁹⁷ That sense of urgency and commitment, coming from a somewhat unlikely source, provides a poignant contrast to the current talk of national self-interest and economic well-being above all other values. It is particularly ironic that such attitudes prevail at a time when the United States is asking for the cooperation of the rest of the international community in combating terrorism. However, there is a stark difference between cooperation based on power, and cooperation based on solidarity such as is envisaged by the other stories surveyed here.

The focus in this article has been on the United States, but it is essential to acknowledge that the official U.S. stance offers an extreme point along a continuum. Other nations share many of the same views; some have rejected the Protocol, while others have ratified without a realistic possibility of meeting their emissions reduction commitments. For all of them, then—for all of us—listening to a different kind of story might not merely involve familiarizing ourselves with an alternative approach to international environmental law and policy. It might just help us to imagine a different kind of world.

even an attempt to quantify and include health benefits such as the avoidance of cataracts and skin cancers. Instead, these were listed as “additional benefits” of the ozone regime.

⁹⁷ Richard M. Nixon, Statement About the National Environmental Policy Act of 1969, (1 January 1970) online: The American Presidency Project <<http://www.presidency.ucsb.edu/site/docs/pppus.php?admin=037&year=1970&id=2>>.