International Environmental Law & Policy Series

KYOTO: FROM PRINCIPLES TO PRACTICE

EDITED BY
PETER D. CAMERON AND DONALD ZILLMAN

in association with
the International Bar Association
Section on Energy and Natural Resources Law

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Kyoto: From Principles to Practice

International Environmental Law and Policy Series

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In the decade that has passed since this influential series was established under the general editorship of Stanley Johnson, international environmental law has truly come of age. The Rio process – the series of international negotiations leading to the 1992 United Nations Conference on Environment and Development in Rio de Janeiro – gave rise not only to crucial multilateral treaties on Climate Change and Conservation of Biological Diversity but also to the Rio Declaration on Environment and Development, which sets out basic principles for the future development of the subject. There is now an extensive network of multilateral environmental treaties in place, and an increasing recognition of basic principles, such as 'the polluter pays' and the precautionary principle, which have already been examined in this series.

The aim of the Editors, supported by their distinguished Editorial Board, is to publish works of the highest calibre which will serve not only to advance the subject itself, but also to consolidate the analytical thinking underpinning new and established issues of international environmental law and policy.

The recent titles published in this series are listed at the end of this volume.

Series Editors' Preface

At the time we write this Preface the future of the Kyoto Protocol is an open question. However, there is little question that the issue of climate change is here to stay. As the Third Assessment Report of the Inter-government Panel on Climate Change indicates, the scientific consensus is growing stronger that the earth's climate has already changed over the last fifty years, that human activity is mostly responsible, and that the continued buildup of greenhouse gases is very likely to cause future changes unprecedented in human history.

National governments tend to operate within relatively short time-horizons, reflecting the urgency and priorities of electoral politics, but these issues require a much longer-term approach involving major changes in behaviour by civil society as well as by industry. If the scientific evidence of global climate change continues to build, government regulation of carbon dioxide emissions remains very likely – perhaps not immediately, but during the lifetime of power plants currently being built. Energy suppliers and investors face enormous potential liabilities for the emissions from those plants, which they ignore at their peril. The more forward-looking among them are already taking actions to reduce emissions and view delays in the implementation of a global framework, not as a free pass to continue business as usual, but as a threat to the progress made over the past few years in building international support for market-based approaches to climate change.

The present volume represents a major contribution to the growing literature on international and comparative climate change policy. The product of a research project of the International Bar Association Section on Energy and Natural Resources Law (SERL), it brings together leading academic lawyers from around the world, who provide detailed perspectives on what individual countries are doing (or, in some cases, not doing) to address the climate change problem. The book illustrates the range of national actions to reduce greenhouse gas emissions, including incentives for renewable energy sources, forestry activities, voluntary agreements with industry, and emissions trading schemes. By including experts from both industrialized and developing countries, it also highlights the very differing perspectives that must be addressed in any international climate change regime, whether under Kyoto or a successor. These detailed case studies provide a rich array of material, which should be of significant interest not only to academic and business lawyers, but also to economists and energy experts, government officials, and NGOs.

Dan Bodansky
David Freestone
Washington DC

Preface

The Academic Advisory Group

This preface is written just as the extraordinary month of November 2000 has turned to December. A crystal ball might allow us to predict with confidence the impact of the 6th Conference of the Parties to the Framework Convention on Climate Change and the excruciatingly narrow victory of Governor George W. Bush in the American Presidential election. Both events make less likely a rapid ratification of the 1997 Kyoto Protocol to the Framework Convention. Neither event, however, we predict will end scientific and legal action to control the impacts of global warming.

Peter Cameron's introductory comments provides a post-Hague perpective. I cannot improve on his insights. As an American, it is appropriate to often some thoughts on the consequence of a new occupant of the White House.

The contrast between the two major candidates' positions on climate change issues was stark. A joint interview with Vice President Gore and Governor Bush in the September–October issue of Audubon magazine queried: 'Do you support the Kyoto Protocol, under which developed countries would reduce greenhouse gas emissions by 5 per cent compared with 1990 levels?'

Vice President Gore responded: 'I am proud of my role in negotiating the Kyoto Protocol – a historic first step in the effort the world must undertake to curb the tremendous threat to our way of life from climate change. I will strongly advocate the ratification. The protocol includes a legally binding emissions-reduction target for the United States of 7 per cent below 1990 levels by the years 2008–2012. That target represents a reduction on the order of 25 per cent that I believe the United States should pursue.'

Governor Bush responded: 'Effects to improve our environment must be based on sound science, not social fads. Scientific data shows average temperatures have increased slightly during this century, but both the causes and the impact of this slight warming are uncertain. Changes in the earth's atmosphere are serious and require much more extensive scientific analysis. I oppose the Kyoto Protocol; it is ineffective, inadequate, and unfair to America because it exempts 80 per cent of the world, including major population centers such as China and India, from compliance. America must work with business and other nations to develop new technologies to reduce harmful emissions.'

The contrast between the candidates goes beyond their statements. Vice President Gore is as environmentally informed as any Presidential candidate in American history. To the extent this political centrist is identified with any issues, the environment was front and center. The Vice President had also spent most of his working life in national government. Governor Bush, by contrast, comes to the

Presidency as an outsider to Washington. Despite involvement in his father's presidential campaigns, the Governor has been a businessman longer than he has been an elected official. His background in the oil and gas industry shaped an ethic that probably leaves him skeptical of "environmental crises." What reputation the State of Texas has for environment policy is more negative than positive.

Yet, it is too soon to write off the second Bush Presidency as a disaster for the control of global warming. The new President's ideas are unformed. A wealth of forces will be seeking to form them. The Congress, though Republican controlled by narrow margins in both Houses, may have gained a slightly more moderate and pragmatic tone. After eight years of White House leadership on global warming, Congress may need to reassert a degree of leadership. Outside of government, the forces of business, NGOs, and the media will also play a role in setting United States global warming policy in the first years of the new century. Most important, United States popular opinion appears to remain squarely on the side of significant action to control serious threat. The President-by-an-eyelash who ignores this runs a serious political risk.

All of this makes this study of national legal response to climate change pertinent and provocative. We hope that it will both summarize the debate so far and contribute to the evolution of global climate change policy in the future.

This book is the work of the Academic Advisory Group (AAG) of the Section on Energy and Natural Resources Law (SERL) of the International Bar Association (IBA). That mouthful deserves dissection. The International Bar Association is the world's largest and most prestigious organization for members of the legal profession. While its roots are in the United Kingdom and the British common law, its current membership and outreach are worldwide. One part of its work involves the advancement of study of the law with particular focus on transnational aspects of law.

The SERL currently has a membership of about 1600 practicing lawyers, jurists, government officials, corporate officers, and legal academics. SERL evolved with the discovery of North Sea oil and gas in the late 1960s and 1970s. The Section's most visible activity became a series of seminars for practitioners addressing the legal aspects of petroleum development. The North Sea focus logically located the first seminars in Cambridge and Stavanger. The presentations emphasized the emerging law of developing expensive and dangerous projects in waters where national jurisdiction was often uncertain. Published materials from the Seminars became some of the most useful literature in the emerging field.

From its start, the SERL seminars and SERL work involved members of the academic community. The 'academic' lawyers working in the new field of energy law often moved easily between the world of the practitioner or government official and the world of the academy. The 'Professor' presenting the Seminar lecture might have been involved in doing energy deals as a former practitioner or a current consultant.

In the early 1980s SERL leadership and individual academics became persuaded of the value of a more formal academic presence within SERL. During the 1981 Seminar in Banff plans for an Academic Advisory Group took shape. The initial AAG drew on academics already participating in or connected to SERL and the Seminars. The British Empire and Norway dominated as a group formed around the United Kingdom's Terry Daintith and Rosalyn Higgins, Australia's

Michael Crommelin, Norway's Hans Jacob Bull and Arvid Frihagen, and a quinet of Canadians, Andrew Thompson, Alastair Lucas, Rowland Harrison, Constance Hunt, and Ian Gault. In addition to their individual qualifications, most of the professors were also directors of or participants in an energy program or center at their law school. This guaranteed the participation of the centers for energy law research at Dundee, Oslo, and Calgary. This arrangement also secured the involvement of the Japan Energy Law Research Institute.

The rather casual origins of the AAG are well recollected by Judge Rosalyn Higgins:

> … I was persuaded by Dan Vock to participate in this and this and that, and somehow I got to know you and others in this agreeable but haphazard way.
>
> In due course I got rather more heavily involved and I recall both giving a paper on property taking as it implicated on petroleum rights and then being quite active in writing on abandonment and participating in group discussions on that topic. And I remember … coming to value my contacts with members of the group, which allowed for a web of 'bilateral' exchanges on points of interest between the sessions (and sometimes on totally different topics than the ones we were currently engaged on.)

I became involved with the AAG in the mid 1980s as it was seeking both a defined mission and greater geographic diversity. My work at the University of Utah Law School's Energy Law Center had encouraged a trip to explore the evolution of the British National Oil Corporation, then a leader in what briefly appeared to be a rising tide of national control of resources by government. That lead to a visit to the legal academics at the University of Dundee and a wide-ranging, three-pint lunch in the Senior Common Room with Director Professor Terry Daintith. Later, as the AAG was seeking a United States connection, Terry was kind enough to submit my name to the AAG and SERL Council members.

I came to the AAG as a relative novice international legal work. I had entered teaching as a public international law teacher but soon found much of the field too airily theoretical for my tastes. My energy work had been United States based – public utility evolution, resource extraction, and alternative energy development. I joined the SERL Seminar in Munich in February 1986 a receptive, but skeptical novice.

I quickly became a believer in SERL and the AAG. The Conference presentations all examined transnational law in the real world. They were often presented by the lawyers who were doing the work. A fascinating session of this and other seminars was the mock negotiation in which the hypothetical problems were drawn from actual transactions in which the participants had lawyered. Conversations in the halls were as good or better than the formal sessions. To have representatives of thirty nations sharing a common set of legal concerns made the week well worthwhile. It also remained me of Ambassador Adlai Stevenson's description of diplomacy as alcohol, protocol, and Geritol. Social events took place in elegant halls, Bavarian mountain retreats and a floor of the Hofbrauhaus with government ministers welcoming us and good food and drink never stopping. Many memories remain vivid. One was watching the differing reactions of German (consuming interests) and Nigerian (production interests) delegates as speakers at

the closing banquet speculated on the shocking drops in oil prices that had taken place during the week of the Seminar.

The AAG was well represented in the Seminar program. Academics Terence Daintith, Rosalyn Higgins, Contance Hunt, Hans Jacob Bull, Yoriaki Narita, Richard Benthan, and Jan Syversen presented papers in six different sessions. Topics ranged from iron ore supply contracts to foreign investment preconditions to off-shore liability and insurance to abandonment of off-shore installations.

The AAG itself had formal responsibility for a session on petroleum and mineral development in polar regions. Five nations were represented – Canada, Australia, Denmark, Norway, and the United States. The academic speakers – Rowland Harrison, Ian Gault, Lasse Hagen, Gillian Triggs, J. Enno Harders, and William Fox – combined AAG members with other academic specialists. Unfortunately, the late afternoon time and a competing session kept attendance to a corporal's guard. The sense of the Group, encouraged by members of the SERL executive, was that there was greater potential for the AAG. Formal and informal meetings in Munich began a dialogue about an expanded AAG presence.

The next step toward a more structured AAG was a 'mid-term' gathering of the academics in May 1987 in Banff. Financial support from SERL covered most costs of travel and housing. AAG membership had diversified beyond the Commonwealth core. The United States, Germany (in the person of Gunther Kühne) and the Netherlands (in the person of transplanted Scot Peter Cameron now leading the Leiden-based Center for Energy Law and Policy) were represented. Prior to the Banff meeting, each participant had prepared a 'national paper' on the topic of government ownership of resource interests. The Banff meeting allowed presentation of the papers and commentary on them. These papers and the discussion stimulated a second round of papers looking at common aspects of the topic. This second round of papers would provide the material for one half-day of AAG presentation at the 1988 SERL Seminar in Sydney.

The initial round of national papers provided an excellent published symposium for SERL's Journal of Energy and Natural Resources Law. The Symposium became both a 'stand alone' work of legal scholarship and an excellent preview for the biennial Seminar in Sydney.

The time between May 1987 (the Banff mid-term) and March 1988 (the Sydney SERL Meeting) allowed serious collaborative efforts amongst the AAG members. I had the pleasure of working with Ola Mestad of the University of Oslo on a comparative study of national approaches to resource ownership. In addition to the exchange of drafts by post, we were able to work together for a week in Salt Lake City. During that time our separate efforts and drafts became a joint product. Differences in legal systems and academic traditions were bridged and the pressure of a deadline advanced the research and writing.

Amidst the charms of the Opera House, the coathanger bridge, an evening at a Sydney beach club, and the closing banquet at the Art Galley of New South Wales, SERL convened in March 1988. The AAG assumed formal responsibility for a portion of the SERL Seminar. The Seminar organizers' concerns about 'long winded professors' prompted a close attention to timing. Zillman and Mestad precisely divided 24 minutes with the care of a television newscast. Peter Cameron, Al Lucas, Gunther Kühne, Michael Cromellin and Arvid Frihagen also upheld the

honor of the academics. What couldn't be spoken remained in the written papers in the Conference proceedings. By the end of the Seminar, the format appeared to have proven itself. The group also agreed to explore the topic of competition and monopoly in energy transactions for the 1990 SERL Seminar in the Netherlands.

The cycle again worked well. A mid-term gathering of a dozen academics in Ottawa in Spring 1989 provided written material for another Journal Supplement. National papers from Japan, the Netherlands, and Denmark increased the non-common law coverage of the topic. The Ottawa meeting again paired collaborators to write papers that offered an international and comparative perspective on the very hot topic of monopoly and comparative in Energy Supply, a look at the revolution in the handling of the network bound resources of natural gas and electricity.

The 1990 AAG presentation at the SERL seminar in Leeuenhorst in the Netherlands provided a good mix of academic theory and practical 'what's happening now'. Leigh Hancher, Alistair Lucas, Peter Cameron, Terence Daintith and Gunther Kühne carried the load for the AAG. They were joined by a strong panel of government officers and private practitioners. In addition to introducing Seminar participants to the unbundling of national energy systems and to the coming of cross-border trading programs in Europe and North America, the AAG session further emphasized the growth of SERL. A strong continental European presence made itself felt. North Sea oil and gas no longer dominated the agenda.

And so, the format was set that defined AAG work for the next decade. SERL Seminars in Washington (1992), Barcelona (1994), Prague (1996), Cape Town (1998), and Hong Kong (2000) allowed the examination of such topics as abandonment and reclamation of energy resources sites and facilities (1992), international energy trade (1994), the energy sector in the post-privatization world (1996), managing jurisdictional conflicts in an era of globalization and liberalization (1998) and legal response to global warming (2000). Mid-term meetings in London, Leiden, Portland, Maine, and Mojacar, Spain allowed the presentation of national papers, division of labor for the SERL Seminars, and the discussion of publication plans.

Few AAG meetings were without some degree of controversy – over membership, Seminar topics, or SERL financial support. Happily, good will on all sides invariably smoothed over the rough patches and left the AAG members feeling that the distinctive enterprise was well worth it.

Both SERL leadership and the AAG recognized the need for increased membership diversity and for a steady, but not too rapid, turnover of membership. The goal was an AAG that represented all regions and nations that play a significant role in energy and natural resources law. Individual AAG members would stay for a sufficient period to learn the SERL culture and gain a close collegial relationship with other members.

As of 2000 both goals have been accomplished. The UK and Commonwealth oriented AAG of 1986 had become an AAG that in 1999 and 2000 drew presentations from much of Europe, Nigeria, South America, China, and Japan. Of the 1986 AAG members only stalwart Alistair Lucas of Canada remains a regular member in 2000. During that time such excellent contributors as Richard Benthan (UK), Martha Roggenkamp (Netherlands), and Inigo del Guayo (Spain) have come and gone. Anita Rønne (Denmark), Catherine Redgwell (UK), and Kunt Kassen (Norway)

have progressed from able neophytes to seasoned veterans. Such new participants as Gillian Triggs (Australia), Peter Tettinger (Germany), Yinka Omorogbe (Nigeria), Zhiguo Gao (China), Lila Barrera-Hernandez (South America), Barry Barton (New Zealand) and Rock Pring and Celia Campbell-Mohn (US) evidence the leadership skills and talent that will sustain the AAG for the next decade.

The SERL has also managed to meet in interesting places at interesting times. The February 1986 Munich meeting took place just as the collapse of oil prices shook the world. The British electorate, rather unexpectedly, returned John Major to power while the 1992 Washington Seminar took place. The Prague, Cape Town, and Hong Kong Seminars all took place in nations less than a decade removed from significant political and social change.

The AAG members have also proven that there is a life after the AAG. Member emeritus Rosalyn Higgins has distinguished herself as a member of the International Court of Justice. Connie Hunt, Michael Crommelin, Ernest Smith, and Don Zillman have all held Law School Deanships. Terry Daintith has led London's prestigious Institute for Advanced Legal Studies. Several members hold endowed Chairs at their Law Schools. Professor Dean Hunt has joined Professor Higgins in taking on the title of judge.

At the start of the new millennium, the AAG can look back on twenty years of growth and productivity. Despite occasional culture conflicts, the relationship between practitioners and academics has worked well. The SERL has provided both funding and an organizational structure to make the AAG work. The AAG in turn has given SERL an intellectual core that would be the envy of many professional organizations.

The AAG members have evolved from co-participants to colleagues to close friends. Often the collaborative work is for an AAG venture. However, the ties forged by the AAG have allowed a wide variety of other teaching and research collaborations among group members and their schools. The coming of the electronic revolution has aided this process. In the mid-1980s much business was still done by the airmail exchange of drafts and by occasional trans-oceanic phone calls. Now FAX and e-mail put Hong Kong, New York, and London only seconds away from each other. It is pleasant to think of what another 20 years can do to further enhance intellectual links among the community of the AAG.

The work that follows reflects the newly two decades of growth of the AAG. The topic was first explored at the Cape Town SERL Seminar in March 1998. National papers were prepared for the 'mid-term' meeting in Mojacar, Spain in May 1999. Those papers have been updated and joined by other papers prepared for the Hong Kong SERL Seminar of April 2000. The discussions at Mojacar, Hong Kong, and over the electronic network have influenced all papers. What follows is thus the series of national and regional studies of reaction to global warming prepared by authors and editors who have studied the transnational and international aspects of the issue.

The major portion of this text consist of eighteen national reports and a report from the European Union about the response to the Climate Change Convention and the Kyoto Protocol. We expect that the text will interest both the student of climate law and policy and persons interested in the working of the international legal system, in general.

Peter Cameron's chapter introduces the science, law, and policy of climate change. It traces a famliar international lawmaking pattern. A problem with transnational implications is identified by governments, NGOs, or private parties. The initial international legal steps often call for gathering of information and identification of consequences. This international action often takes places at the same time as national actions which address the concern. As the scope of the problem is better identified and as advocates for change put their case before the public, a consensus for changing may arise. Typically, voluntary efforts are first. If these don't show sufficient progress, the voluntary becomes the mandatory. Once mandatory standards are set, enforcement becomes crucial.

The meeting of the Conference of Parties in Kyoto in 1977 certainly marked a point at which greenhouse gas emissions control became more than just aspirational law. The setting of standards for GHG reductions by a substantial portion of the nations of the world emphasized that 'hard law' was coming to the field of climate change.

But, international consensus does not settle matters. The hard action still remains at a national level. Convention signature does not guarantee national ratification. Further, the Climate Control Convention and the Kyoto Protocol do not mandate precise national formuals for compliance. That work is for national legislation in all its spectacular variety.

That is the topic of this text. Each national report starts from the premises that the nation takes seriously the findings of eminent scientists and the obligations of the Climate Control Convention. From there things diverge.

The papers remind us how global climate change is. National pollution has international impact. One nation's exemplary correction of problems may not help if other nations continue polluting. The issue crosses generations. We (the present generation) are asked to take actions that will primarily benefit our children and grandchildren. More precisely, we are asked to make expenditures that will have definite economic costs now and uncertain benefits to generations decades in further. The law, national and international, struggles with such issues.

Since our collective expertise is in energy, virtually all of the national papers examine the impact on the energy industries of a major change in GHG release policies. Winners and losers emerge from such calculations. Often the losers (the business harmed by stricter controls on GHG emissions) will have the temporary advantage within the national political process that produces binding national laws. The potential winner (the existing or new business that sees benefits from the new laws) may not be certain of its gain or may not have gathered political support for a hypothetical benefit some years in the future. Also, bottom line economics, best scientific evidence, or codified law may not resolve an issue if popular sentiment is of a different view. If reducing GHG emissions were the single objective, the public should be indifferent to whether the combustion of hydrocarbon fuels is replaced by nuclear power or by various 'clean' alternatives. The fact that they are not speaks volumes to the law that is emerging in the field.

The control of GHG emissions will not take place on a blank legal slate. The control of air pollution is, at least, several decades old in most of the nations studied. Those air pollution control programs did not initially focus on global warming issues. They did, however, set up a legal structure for air pollution controls that is

likely to have an impact on efforts to control new air pollutants. This has plusses and minuses. It is valuable to have already taken the first steps in air pollution control. Wheels need not be reinvented. On the other hand, the regulatory program that has been established before GHGs achieved high priority may impose impediments to the regulation of a 'new' pollutant.

The national papers also remind us of the diverse governmental realms in which climate change issues reside. Is GHG emission an environmental problem, an oil and gas problem, an energy use problem, a tranportation problem, an international relations problem, a coastal and marine problem? Each topic is likely to have a national agency with distinctive interests in the matter. Some of the agencies would prefer the GHG problem remain off the national agenda altogether. 'Our job is promoting the development of national oil and gas resources, not worrying about the consequences of their combustion.' However, once the GHG emissions issue is on the national agenda, the agency is likely to want a degree of control over the issue. If 200 new bureaucrats are to be hired, they should be in my shop. More substantively, if serious change is to be made, the agency wants to be sure that adequate attention is paid to the impacts on its core constituents. This multi-jurisdictional struggle complicates as we address nations with federal systems. The state or provincial agencies may contend for control with the national agencies. Both constitutional and national law and practical politics help settle these controversies.

The national papers reveal the wonderful diversity of solutions to the problem of GHG emissions. United States lawyers are familiar with Justice Brandeis' praise of the individual states as 'laboratories' in which social experiments can be attempted. If successful, they may set practice for other states or the national government. In similar fashion, the Conventions' receptiveness to diverse solutions allows a wealth of approaches to controlling GHG emissions. Some may make sense only in the context of a particular nation. Others may prove readily exportable if they work in one nation.

Two generations of scholarship about the relationship of economics and law are evident in the discussion of solutions. Ideally, the solution to GHG emissions should provide the largest possible benefit at the lowest possible cost. Some solutions may be far more expensive than others. It is not surprising that a nation facing limitations on its total emissions of GHGs will seek to remedy the problem in the least expensive way possible. Typically, that makes economic as well as political sense. The opportunity to reach agreements with other nations that follow the same rules adds further capacity for economic resolution. It also raises hard questions about what matters should be measured (should Russia get for credit for foregone emissions that may never in fact have taken place) and what equities among nations should be weighed.

The next few years will probably decide whether the Kyoto Protocol will receive world-wide acceptance as the guiding standard for control of GHG emissions. The United States and Australian papers provide a look at two first-world skeptics about Kyoto. Skeptics among the developed nations are met by doubters in the developing world. Prof. Omorogbe reminds us that the average Nigerian does not have GHG emissions at the top of his or her problem list. Prof. Gao would doubtless conclude the same about the average Chinese citizen. Both

nations take the sensible position that a problem caused, so far, by the developed nations should not undercut vital economic development in the developing world.

Kyoto may well not carry the future. However, GHG emissions will not leave the public agenda. Law and policy must address the issue of global warming. National law can certainly make useful progress to that end. But, some degree of international agreement and collaboration will be needed.

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