

import of hazardous wastes under the Commerce Clause, Europe appears to have gone the other way, and this is followed by a confident discussion of the position under GATT Article XX(b) (at 476).

The subsequent chapter then deals, separately, with the intricacies of technical barriers, standards and health under GATT, the SPS and TBT Agreements. It also contains a welcome discussion of the *Cartagena Biosafety Protocol* and potential conflicts between the *Protocol* and the SPS Agreement. What results is a book which provides the most comprehensive and integrated treatment of trade, environmental and health matters in any trade law textbook currently available on the market, dealing with the various complexities with an admirable neatness of thought and presentation.

Finally, the last chapter, which addresses contemporary concerns about WTO decision-making, civil society and developing countries, presents a useful starting point for those who wish for an authoritative overview of the state of the WTO today.

Rarely do we find a new book, in its first edition, to be both progressive and authoritative at the same time. This book is simply required reading and we should be grateful to the publisher for bringing it out in paperback. Its publication is a significant event in the field.

*reviewed by C.L. LIM*

*Legal Aspects of Implementing the Kyoto Protocol Mechanisms: Making Kyoto Work* EDITED BY DAVID FREESTONE & CHARLOTTE STRECK [Oxford: Oxford University Press, 2005, xlvi+643 pp, Hardcover: £95]

On 16 February 2005, the Kyoto Protocol entered into force. *Legal Aspects of the Kyoto Protocol Mechanisms: Making Kyoto Work* is a timely addition to the literature on the Kyoto Protocol at a time when greater understanding of how to implement the Protocol is vital. This book also comes at a time when a wider group of players, including project developers, private corporations, international development institutions, lawyers, consultants and accountants, is starting to engage more with the Kyoto mechanisms.

The Kyoto Protocol is a multilateral environmental agreement that was promulgated to address the serious threat of climate change. Setting aside the controversies surrounding the accuracy of efforts to predict the impact of

climate change, the scientific evidence establishing the salient aspects of climate change is unequivocal. Climate change is attributable to the rising concentration of certain gases released into the atmosphere by human activities (particularly industrial activity). These gases produce a "greenhouse effect", hence the name "greenhouse gases" (G.H.Gs), by trapping heat in the atmosphere. These G.H.Gs include methane, nitrous oxide and perfluorocarbons but the most significant G.H.G. is carbon dioxide. If no steps are taken to limit G.H.G. emissions over this century, the rate and extent of warming is only expected to increase. Different countries will be affected in different ways and to different extents, but generally, the global impact of climate change will be adverse. Shifts in ocean currents, the collapse of the western Antarctic ice sheets, the flooding of low-lying coastal areas and small island states, adverse impact on agriculture and forestry and public health crises are but some of the likely consequences if climate change continues unmitigated.

Global cooperation is necessary in order to address an issue of global impact and importance. At the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil (commonly known as the Rio Summit) in June 1992, the United Nations Framework Convention on Climate Change (UNFCCC) was opened for signature. It now has 194 Parties. The basic objective of the UNFCCC is not to reverse greenhouse gas emission levels, but to stabilise them "at a level that would prevent dangerous anthropogenic interference with the climate system". Given the vagueness of the obligations in the UNFCCC itself, it was only a matter of time that more concrete obligations and a more precise time-frame for the reduction of G.H.G. emissions would have to be promulgated. This was the driving force behind the Kyoto Protocol.

The Protocol obliges industrialised countries to reduce their G.H.G. emissions to meet legally binding targets. These countries are known as "Annex I countries". The challenge these countries face is to reduce their existing emission levels to their assigned amounts. In order to address concerns that reducing G.H.G. emissions, which are primarily caused by industrial activity and energy production from fossil fuels, will harm domestic economies and the global economy, innovative market-based mechanisms were built into the Kyoto Protocol to help Annex I countries reduce emissions at least cost. The use of such economic instruments is unprecedented in international environmental

law. Known collectively as the “Kyoto mechanisms”, these instruments include Joint Implementation (J.I.), the Clean Development Mechanism (C.D.M.), and International Emissions Trading.

J.I. allows any Annex I country to acquire from, or transfer to, another Annex I country, reductions of G.H.G. emissions, known as Emission Reduction Units (E.R.U.s). The C.D.M. allows Annex I countries to finance emission reductions projects in countries which do not have any reduction commitments under the Protocol, *i.e.*, non-Annex I countries. The objective of the C.D.M. is clearly set out in Article 12(2), *i.e.*, “to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their ... commitments under Article 3”. An emission reduction credit produced by a C.D.M. project is termed a Certified Emission Reduction (C.E.R.) to distinguish it from the E.R.U. Finally, Article 17 of the Protocol allows for the trading of all emission reduction credits, establishing an international emissions trading scheme.

All these units are equal to one metric tonne of carbon dioxide equivalent, but importantly, are also tradable interests as they represent an entitlement to release a certain quantity of G.H.G. emissions into the atmosphere and are transferable under certain conditions. The transfer and trading of these units has created the nascent “carbon market”. Further, in the process of implementing climate policies to meet their targets, Annex I countries have translated their Kyoto commitments into allocations of emissions rights to their private sectors. This recognises that the market is the best determinant of where, when and how G.H.G. emissions reduction should take place. Faced with these legally binding reduction targets, the involvement of businesses in the global carbon market is a foregone conclusion. Finally, the ambition of the Kyoto Protocol extends beyond reducing G.H.G. emissions. As mentioned earlier, the C.D.M. is also envisioned to help developing countries achieve sustainable development and participation in the global climate change agenda.

*Legal Aspects of the Kyoto Protocol Mechanisms: Making Kyoto Work* is a remarkable single volume containing cutting-edge, state of the art knowledge on the implementation of the Kyoto mechanisms, domestic emissions trading schemes and transactions of emission reduction

credits (*i.e.*, carbon transactions). The experience and expertise of the editors alone gives this book its authoritative value. David Freestone is Chief Counsel and Head of the Environmentally and Socially Sustainable Development (ESSD) and International Law Group in the Legal Vice Presidency at the World Bank. Charlotte Streck was formerly Counsel for International and Environmental Law with the World Bank and is a founding partner of ClimateFocus, a carbon consultancy based in the Netherlands which counts the Danish Environmental Protection Agency, Rabobank and the World Bank amongst its clients. The two editors bring together thirty-seven contributors who draw upon their wealth of knowledge and experience to skilfully discuss how, through innovative adaptation and original creativity, players in the emerging carbon market have dealt with attendant uncertainties and risks.

Annex I country governments, governments of countries that are potential hosts of CDM projects, corporations which have to comply with domestic environmental regulations, large financial institutions which are looking to finance environmentally and socially responsible projects, entrepreneurs in developing countries and economies in transition seeking additional sources of funding for eligible projects, will find this book indispensable to understanding the practical aspects of implementing the Kyoto mechanisms. They would also benefit greatly from the advice that the contributors generously provide.

Written largely by practitioners, the overall tone of this volume is pragmatic. Uncluttered by copious footnotes and accompanied by helpful charts and diagrams to illustrate otherwise complex concepts, the articles are accessible and rightly focused on the salient operational and legal aspects of implementing the Kyoto mechanisms. Comprising eight parts, Part I is an introduction to the Kyoto Protocol and the emerging carbon market. David Freestone provides a succinct overview of the climate change regime, beginning with the conclusion of the 1992 UNFCCC and the process leading up to and following the adoption of the Kyoto Protocol. He also explains the rationale for the involvement of the World Bank in the carbon market, particularly the Prototype Carbon Fund. This Fund was a World Bank initiative intended to demonstrate how carbon transactions could present investment opportunities to industrialised countries as well as enable developing countries to take full advantage of the opportunities offered by the Kyoto mechanisms.

Given his role at the World Bank, there is probably no other person more qualified than Freestone to speak on the bank's participation in the emerging carbon market. The second installation in Part I by James Cameron, written in a more informal narrative style, exhorts businesses to see climate change as an opportunity, not a threat, and to stop trivialisating the costs of the consequences of climate change. The problem is that, as he puts it, "[w]e are so focused on the now, the next week, the next quarterly report that we seem unable to communicate to our business community that these risks are just not worth running". The first step to the solution "... is to stop feeling that the mission is impossible". Throughout the volume, this "... vision for a better way of life ..." is shared by the contributors who have sought ways to push the climate change agenda forward despite the uncertainties and risks involved.

Part II deals with the general issues raised by the Kyoto mechanisms. In their analysis of the legal nature of an emissions allowance, Wemaere and Streck seek to address the accounting and tax treatment of emission allowances. They also discuss the administrative law issues that might arise when a state confiscates or discounts these rights. Of direct practical relevance, Casamento discusses the debate surrounding the tax and accounting treatment of emission allowances. It is increasingly recognised that public participation enhances the success and accountability of environmental and developmental policies and projects. The C.D.M. and J.I. both contain rules to ensure and enhance such public participation. Natalie Eddy provides a comprehensive account of the public participation (primarily, access to information, access to participation and access to justice) rules of the C.D.M. and J.I., including two highly informative tabulated stage-by-stage summaries of the rules. She also compares the public participation rules of the C.D.M. and J.I. to those of the World Trade Organisation, the Convention on Biological Diversity, the Global Environment Facility and the World Bank Inspection Panel to demonstrate that they meet international standards.

The heart of this book lies in Parts III, IV and VII. They take the reader on a comprehensive journey through the implementation of the J.I. scheme, the C.D.M. scheme and emissions trading scheme respectively. Part III begins with a useful introduction to the history of the concept of J.I., the conceptual differences between the C.D.M. and J.I. and, drawing from the author's

experience, the steps to be taken in preparation of a J.I. project. Hobley and Hawkes make the case that a fully functional registry system for recording and tracking emissions units is vital to developing a liquid and thick emissions trading market. Finally, it is recognised that J.I. projects are likely to be carried out in countries with economies in transition. Väyrynen and Lecqoc urge that a preliminary step for countries which might host J.I. projects is to develop a comprehensive strategy on how to manage their assigned emission allowances and to assess how they could best utilise them to maximise benefit to the global climate change system and their domestic economies.

Part IV looks at the C.D.M. in detail. Public and private sector players are not the only ones who have had to respond to the Kyoto mechanisms in an innovative fashion. The operation of the C.D.M., for example, has created a new role for the UNFCCC Secretariat which is vastly different from those played by the Secretariats of other multilateral environmental agreements (discussed by Netto and Schmidt). Meijer and Werksmen tackle an issue that is vital to the success of the Kyoto Protocol—how to ensure the environmental integrity of the C.D.M. Capacity-building is essential for developing countries to take full advantage of the opportunities offered by the C.D.M. O' Sullivan and Cormier provide useful advice on how to create an efficient and transparent Designated National Authority (D.N.A.). Huq and Reid discuss how benefit-sharing (this refers to the benefits from the C.D.M. project that accrue to the government or local community of the country in which the project is being carried out) is achieved in practice by examining a number of case studies. In the last chapter of this Part, Wilder discusses the politically contentious issue of the participation of non-Party private entities in the Kyoto Protocol. Part V on carbon sequestration provides a useful overview of the controversial issue of including "sinks" in the Kyoto Protocol. "Sinks" is a short-hand term that refers to the uptake and loss of carbon from terrestrial vegetation and soils. Scholz and Noble briefly describe the negotiating history that led to the agreement on "sinks" or Land Use, Land Use Change and Forestry (L.U.L.U.C.F.) mitigation activities reached at the Ninth session of the Conference of the Parties (COP9) and the methodological challenges that are posed by L.U.L.U.C.F. activities. Bosquet takes us further in his analysis of the unique features of L.U.L.U.C.F. transactions.

Part VI will be vital reading for commercial lawyers engaged in the drafting and negotiation of “carbon contracts” governing transactions of emission reduction credits. Like all contracts, carbon contracts seek to allocate risks amongst parties to a transaction. What distinguishes a carbon contract is an additional set of risks unique to transactions of emission reduction credits that needs to be addressed. These additional risks include the insecure regulatory environment as many national governments have yet to recognise transactions of emission reduction credits in their domestic legislation, the undefined nature of the commodity itself and possible failure of the project to generate the requisite emission reduction credits. Wilder, Willis and Guli share their practical experience of structuring different types of carbon contracts. Van der Weerd provides a buyer’s perspective on carbon transactions. He explains how the Netherlands, as one of the first countries to purchase carbon credits through public procurement procedures and through involvement in the Prototype Carbon Fund, has sought to allocate its risks through carefully drafted contracts. Pogány provides the seller’s or project developer’s perspective in the subsequent article. While there is a need to maintain flexibility, negotiating each contract from scratch is a time-consuming and expensive process. The World Bank has developed standardised documentation including a model Emission Reductions Purchase Agreement (E.R.P.A.) for all its Carbon Funds. Streck discusses the main features of the E.R.P.A. against the background of a general analysis of the key elements of a carbon transaction. Finally, while skilfully-drafted contracts can ameliorate the risks of dispute amongst contracting parties, the nature of the business brings together private and public players from various legal systems, the convergence of which could lead to differing interpretations of contractual obligations. In Chapter 21, Ratliff analyses the use of arbitration as a dispute settlement procedure and the inclusion of arbitration clauses in carbon contracts.

Part VII presents an interesting overview of some of the emissions trading schemes that have been implemented in countries as diverse as Chile, Australia and Canada. The Australian example is an interesting one because the emissions trading schemes take place at the state level, implemented by state governments that wish to see the federal government ratify the Kyoto Protocol, while the latter remains opposed to ratification because of competitiveness concerns. In his discussion of

the legislative action that is being taken to implement the European Union Emissions Trading Scheme (EU ETS) directive in Germany, Marr gives us an idea of the challenges that are faced by countries seeking to introduce domestic emissions trading schemes to put into effect a larger regional scheme. The EU ETS is discussed separately by both Dornau and Lefvere. As the first regional emissions trading scheme covering some 13,000 installations across the 25 countries of the European Union, the EU ETS is an important “learning by doing” experiment. Dornau succinctly describes the main features of the EU ETS, including its scope, allocation methods and unique provisions. Lefvere addresses a very important issue—the “linking” of domestic or regional emissions trading schemes to create larger carbon markets. The EU ETS itself can be considered a linking of 25 domestic emissions trading scheme. At the next level, the EU ETS itself may be linked to trading schemes outside the EU. Finally, linking between the EU ETS and the Kyoto flexible mechanisms can be sought. This third form of “linking” has received the most attention in recent years and has been achieved by the promulgation of a “Linking Directive” of which Lefvere provides an excellent analysis.

Part VIII draws some important conclusions about this remarkable treasure-trove of information and knowledge. The editors highlight the main themes that unite this collection—originality and innovation which arises from the very novelty of the Kyoto Protocol, the adoption of a “learning by doing” approach because the architecture of the Kyoto regime is very much a work in progress which all players have the potential to shape, and the management of risks and uncertainties. The two Appendices at the end of the book include the treaty text of the Kyoto Protocol itself and Part Two of the “Marrakesh Accords” which is a key source of guidance on the details necessary for the operation of the Kyoto mechanisms.

It might be noted that the perspectives of developing countries and local communities which are likely to be most affected by the implementation of C.D.M. projects are not quite as well-represented as those of the industrialised countries and the international financial institutions, primarily the World Bank. This is arguably a reflection of the reality that the hub of the emerging carbon market is Europe and the World Bank has been the “trailblazer” of carbon funds. Now that the Kyoto Protocol has finally come into force and a wider group of players is expected to engage in the Kyoto mechanisms,

the representation of a wider spectrum of perspectives can be expected in a subsequent edition of this book.

I would highly recommend this book to readers who wish to gain an insight into an exciting and dynamic area of the law which will only continue to flourish. This book demonstrates that while the Kyoto Protocol seeks to address an environmental issue, the legal implications of emissions trading extend well beyond environmental law, encompassing and interacting with many other areas of the law including commercial law, property law, competition law, securities regulation and so on. The editors of *Legal Aspects of Implementing the Kyoto Protocol Mechanisms: Making Kyoto Work* deserve much credit for this invaluable contribution towards the literature on the Kyoto regime.

reviewed by JOLENE LIN

*Beyond the Age of Innocence: Rebuilding Trust Between America and the World* BY KISHORE MAHBUBANI, [New York: Public Affairs/Perseus, 2005. xx + 236 pp. Hardcover: US\$ 26]

Mr. Kishore Mahbubani is the Dean of the Lee Kuan Yew School of Public Policy, following a very distinguished career in the Singapore Foreign Service which culminated in two terms as Singapore's Ambassador to the United Nations (New York). He was Permanent Secretary, Ministry of Foreign Affairs from 1993-1998. His latest book, *Beyond the Age of Innocence: Rebuilding Trust Between America and the World*, lies, at first glance, in the tradition of a seminal American work, first published in 1959.

In that year, the prominent American historian William Appleman Williams (1921-1990) first published *The Tragedy of American Diplomacy*, new ed., (New York/London: Norton, 1988). Its impact was modest at the time of its publication, which also served to limit the controversy it caused. Criticised by some as a Stalinist tract at the time, during the height of McCarthyism, or perhaps worse, as an irrelevance, it is recognised today as the classic work on the economic interpretation of American foreign policy. One of the themes explored by the late Professor Williams was the tragedy of American attempts to make a better place of the world, or at least of individual nations in America's own image. Tragedy because America, with the best of intentions and the

highest ideals, had transformed countries like Cuba, for example, from a Spanish colony to an American protectorate, had grown the local sugar industry, fostered representative government and the rule of law, and so on, while remaining at the same time oblivious to the other, more controversial, effects of American policy in other countries.

*The Tragedy of American Diplomacy* begins by exploring a reality which Americans glimpsed only vaguely, but a reality which nonetheless threatened to impinge on the idealised "consensus" American conception of American power, its use and deployment. From a Cuban viewpoint, America failed to deliver what it promised. It fell to Cuba and Cubans to create for themselves the ideal which had been promised—enjoyment of the right of self-determination and a modern and balanced Cuban political economy. In short, America created Castro and the Cuban crisis of 1958 to 1961, and Williams argues that such examples represented American diplomacy as a whole by the twentieth century.

In *Beyond the Age of Innocence*, Mahbubani says that Americans know less about the world around them than the world does about America. Americans today live in a goldfish bowl—what happens in America is broadcast into living rooms globally. The world watches America watch TV and what America sees on TV tells America less about the world than what others outside America see about America. In the meantime, Mahbubani explains, the consequences of American policies has stirred discontent towards America internationally, while American-led economic globalisation has shrunk the world and therefore brought that discontent closer to America's shores. In Chapter Two (at 27-58), he deals with "How America Has Harmed the World". With the collapse of the Soviet Empire and the end of the Cold War, America found itself without "vital short-term interests" in Afghanistan, Pakistan, Indonesia and many other parts of the world, and it abandoned these countries. In the case of Afghanistan, for example, this caused chaos in Afghanistan while a borderless, shrinking global reality brought the issue home to America: "These were, in simple terms, the origins of the catastrophe that occurred in September 2001" (at 38). The other examples given are equally disturbing, as they are compelling; strong American support had helped to sustain the regime of President Suharto but in 1998, during the Asian financial crisis, the United States and the International Monetary Fund